ONE-YEAR DEVELOPMENT PLAN

JULY 1970 TO JUNE 1971

FOREWORD

The launching of this One-year Plan which envisages a substantial increase in public sector capital outlays ushers in a new era of accelerated economic and social reconstruction. It brings to a close the period of stabilization and the subsequent transitional efforts for resuming economic growth which marked the economy for the last four years of the 1960s.

The Government recognises and accepts its primary responsibility for improving the living standards and the quality of life of Ghanaians, especially those who dwell in the rural areas. It regards this duty as the most effective way of nurturing and sustaining our infant democratic institutions. It is therefore committed to using the resources at its disposal for stimulating and promoting sustained growth of the economy in order to increase the productive capacity of the economy and the job opportunities for our citizens.

We have emphasized on several occasions the importance we attach to development planning for the realization of our national development objectives. We intend to make our development plans effective action programmes and frame of reference for our national reconstruction efforts. This has been demonstrated by the close collaboration which marked the preparation of this Plan and the Capital Budget for 1970/71. The Plan should also be read together with the 1970/71 Budget Statement which outlines in detail some of the policy measures designed to facilitate the achievement of the Plan objectives and targets. The close co-ordination of the three exercises attests to our determination to ensure that our development planning efforts henceforth make a real contribution to the reconstruction of the national economy.

Regional and district authorities constitute a valuable vehicle for plan preparation and implementation and for the realization of our objective of minimizing regional inequalities. Every opportunity will be taken for securing local participation in the Government's policies and measures have already been taken to strengthen the planning and consultation machinery at local level.

Preparations have already begun for the formulation of a medium-term plan in which we intend combining the benefits of a longer term perspective and the flexibility required if policies are to reflect changing circumstances. We sincerely hope that we can later look back to the launching of the One-year Plan as constituting the beginning of effective and purposive planning. For this wish to be realized the unstinted support, co-operation and active involvement of the whole nation in the implementation of the Plan will be indispensable. Only through self-reliance and our own hard work supplemented by a generous and more positive attitude on the part of donor countries can our objective of accelerated development be realized. It is our hope that our creditors

after reconsidering the economic and social responsibilities of our government will re-evaluate our debt repayment obligations in order to facilitate our efforts to improve our productiye capacity and thereby our repayment capability.

It is the hope of the Government that our national efforts will elicit international support so that we can effectively launch the new era of economic prosperity for our citizenry.

THE RT. HON. DR. K. A. BUSIA
Prime Minister of Ghana

1. INTRODUCTION

The Government is committed to the task of accelerating the pace of the nation's economic and social development and to ensuring that the fruits of development accrue in an equitable fashion to all sections of the population and to all the regions of the nation. It regards development planning as an essential tool for achieving these objectives.

It is the belief of the Government that a development plan spanning a number of years must, if it is to make a real impact on economic decision-making and activities, be prepared with great care and in close consultation with those whose activities it seeks to influence, and especially those to whom its implementation has to be entrusted. This One-year Plan has therefore been prepared as an interim measure to guide public sector development decision-making for the period of the fiscal year 1970/71—July 1970 to June 1971. In the meantime preparation of a multi-annual medium-term plan has already begun.

Since developments in 1970/71 are to a large extent pre-determined by actions taken in the preceding years a major objective of the One-year Plan is to lay the foundation for tackling on a longer term basis the economic problems that beset the nation. It therefore sets the stage for the launching of the multi-annual development plan in 1971. The major economic problems and the Government's strategy and measures for dealing with them would then be outlined in a more systematic and concerted manner and within a broader time perspective. In the meantime the One-year Plan provides an overall economic setting for viewing the specific proposals, projects and programmes outlined in the 1970/71 Capital Budget. It also gives an indication of how the various projects and programmes are expected to contribute to the task of promoting and stimulating accelerated economic and social development in the years to come.

Given the lack of time for consultation with the private sector, the programmes and projects in this plan have been confined largely to the public sector. The early chapters deal with the economy as a whole in order to provide an overview of the total economic framework against which the public sector activities have to be viewed. The operational content of the plan, therefore, concentrates on the work of the Central Government itself and that of other public agencies. In this connexion it must be pointed out that the preparation of the One-year Plan was very closely related to that of the capital budget for 1970/71. The Plan in effect, constitutes the economic rationale for the Capital Budget.

The opportunity afforded by the preparation of the One-year Plan has been seized to analyse and evaluate the performance of the economy during the period of the Two-year Development Plan which covered the 1968/69 and 1969/70 fiscal years. The relevant chapters have therefore attempted a review of the Plan targets and achievements for the past two years. It is hoped that the lessons derived from such an exercise will improve our plan implementation capacity.

The Government wishes to underscore its view that the most important thing about planning is the effectiveness with which the plan intentions and programmes are carried out. The Government on its part is determined that development policies outlined in this Plan are fully implemented. The effectiveness of the Plan should, therefore, be judged by the extent to which it succeeds in influencing development activities and decisions in the plan period.

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2. REVIEW OF PROGRESS DURING THE TWO-YEAR DEVELOPMENT PLAN, 1968/69 AND 1969/70

The economic crisis that confronted the nation in 1966 was such that the National Liberation Council (N.L.C.) was initially forced to concentrate on a programme of economic stabilization. The economy at that time was characterised by severe shortages of foreign exchange, a large external debt, declining domestic savings, substantial unutilised industrial capacity, growing unemployment and a stagnant agricultural sector. By July, 1967 a substantial measure of recovery had been achieved, thus permitting a transitional *Two-year Development Plan, 1968/69 to 1969/70* to aim at resuming economic growth within a framework of internal and external equilibrium. A major objective of the *Two-year Plan* was to stimulate growth by reducing the constraints on the utilisation of available resources and thus reduce the high unemployment levels.

The intention in this chapter is to evaluate the performance of the economy during the *Two-year Plan* period, to provide insights into the bottlenecks and problems encountered and thus permit a realistic formulation of the *One-year Plan* itself.

Sectoral growth rates

Table 2–1 shows the sectoral production levels and growth rates actually achieved between 1967 and 1969 by comparison with the *Two-year Plan* targets. Although individual sectoral growth rates differed markedly from plan targets, the overall growth rate of 9.5 per cent was only slightly lower than the target rate of 9.9 per cent.(1) However, the growth rate of 9.5 per cent may overstate the actual achievement. The national accounts in Table 2–1 are based on the assumption that agricultural output grew at the same pace as population, i.e. by about 2.7 per cent per annum. There is reason to believe, however, that output did not in fact keep pace with population.(2) Accepting alternative estimates of agricultural output would reduce the overall growth rate for G.D.P. to less than 8.0 per cent. Even so, it is fair to conclude that the efforts made under the *Two-year Plan* succeeded in reversing the downward trend which characterised the economy between 1965 and 1967, when real G.D.P. actually declined by more than 4 per cent.(1) Moreover, improvements occurred in Ghana's terms of trade which were equivalent in real-resource terms to 3.7 per cent of G.D.P. and this further improved the economic situation.

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(1) These growth rates differ from those indicated in the *Economic Survey*. They have been derived using a new terms of trade series developed by the C.B.S. but not yet adopted for use in the official series of national accounts.

(2) For an elaboration of this point *see* chapter 8 which deals in detail with the agricultural sector.

TABLE 2–1

GROSS DOMESTIC PRODUCT BY SECTORS OF ORIGIN 1967/69(c)

(N¢ million; 1968 market prices)

Sectors	1967	1969	PERCENTAGE CHANGE 1967/69	
			(*Actual*)	*Plan Projection*
Agriculture	510	538	5.5	5.5
Forestry(a)	76	85	11.8	4.4
Cocoa	177	166	-6.2	13.5
Fishing	17	25	47.1	30.0
Mining	50	45	-10.0	5.0
Construction	80	82	2.5	20.0
Manufacturing	160	190(b)	18.7(b)	20.7
Electricity and fuel	44	53	20.5	18.4
Services	854	970	13.5	10.0
Total G.D.P.	1,968	2,154	9.5	9.9

(a) Excluding sawmilling, plywood and veneers.

(b) Estimated on the assumption that small scale manufacturing for which no data are available, grew at the same rate, over the 1967–69 period, as the total economy, i.e 9.5 per cent.

(c) Figures for 1969 are provisional.

Output of the industrial sector—manufacturing, electricity, fuel, construction and mining-increased about 11 per cent. Within the industrial sector, electricity and fuel exceeded the plan targets. Electricity generation increased by about 75 per cent over the two years, largely as a result of the commissioning of three Valco potlines in 1968, the nation's largest electricity consumer. A more gradual rise in electricity demand, already evident in 1969, will probably continue in 1970/71. While the Plan target was slightly underfulfilled in total manufacturing, the growth rate realized constituted a major improvement on past performance. In the large-scale sector—those employing 30 or more people—the growth recorded was about 24 per cent—a rate exceeding the plan target for manufacturing as a whole. A continued move towards substitution of semi-finished goods and raw materials for finished imports and the more adequate provision of spare parts provided a major impetus for the growth in manufacturing output. Exports of manufactured goods, largely aluminium ingots, also increased. It now appears that domestic demand constraints will increasingly hamper the further growth of import substitution and that exports will have to be increased if manufacturing growth is to be accelerated.

Construction activity was severely affected by the rains in 1968 but this was followed by a recovery in 1969. Nevertheless, for the two-year period as a whole this sector achieved only a marginal increase in output. Road and housing construction are the major components of the construction sector. An encouraging development was the improved performance of the Public Works Department, largely as a result of more efficient organisation. This trend can and should continue. Implementation of the housing programmes, especially by the State Housing and Tema Development Corporations, fell short of the plan targets, partly as a result of lack of funds. In the mining sector, production in all branches declined in both 1968 and 1969 (*see* Chapter 12). Given the gradual depletion of known reserves in some areas, increased output will be difficult to achieve in the near future.

In the non-industrial sectors, exports of logs increased in response to the 1967 devaluation and more logs were supplied to the domestic wood processing industry. As a result, output of the forestry industry grew by nearly 12 per cent or nearly three times the growth rate projected in the *Two-year Plan*. Fishing, which had a disappointing year in 1968, especially in terms of the marine catch, recovered in 1969. The catch from the Volta Lake exhibited a rapid rate of growth. The 1968/69 main cocoa crop was also unfavourably affected by the weather and, partly as a result of this, world cocoa prices rose and contributed to an improvement in Ghana's terms of trade.

On the basis of preliminary data it appears that some improvement in the employment situation may have occurred during the past year as a result of the improvement in the growth performance of the economy. Employment in registered establishments with ten or more employees stood at 405,800 in 1969, thus exceeding the previous high recorded in 1965. This indication of an increase in employment must, however, be treated with extreme caution. Part of the increase in recorded employment may well represent improvements in the collection of statistical data. Even accepting some real increase in employment levels, the number of unemployed has continued to increase. It is estimated that each year there are 225,000 new entrants into the labour market and the economy has so far been unable to generate sufficient employment opportunities to absorb this increase in labour supply. The high rate of unemployment, implying a waste in economic and social resources, remains a critical problem.

The external sector

As a full discussion of the balance of payments is presented in chapter 6 it is sufficient here to concentrate on developments in the current account and the terms of trade. As shown in Table 2–2, the actual improvement in the current account fell N¢32 million short of the plan target, solely due to shortfalls in export receipts. In terms of output, the shortfalls were even larger than shown in the table, these being partially offset by price increases. Export promotion measures therefore

deserve the utmost attention as a means of improving the nation's balance of payments position and to help finance the economy's import requirements.

TABLE 2-2

BALANCE OF PAYMENTS ON CURRENT ACCOUNT

N₵ millions; post-devaluation

	1967	1969(a)	Change Actual	Change Projected
1. *Receipts*	326	401	+75	+109
Exports (f.o.b.) (b)	290	363	+73	+102
Services (c)	31	33	+2	+ 7
Transfers	5	5	—	—
2. *Payments*	412	452	+40	+42
Imports (c.i.f.) (c)	301	340	+39	+41
Services (including debt-servicing interest)	90	93	+3	+1
Transfers	21	19	−3	—
3. Balance on current account ..	−86	−51	+35	+67

(a) Provisional actuals.
(b) Excluding Valco.
(c) Including Valco current operations.

The *Two-year Plan* envisaged an increase in the world price for cocoa resulting in an improvement in the terms of trade equivalent to about 3.5 per cent of real domestic production. It can be estimated, however, that the actual improvement in 1967/69 was equivalent to about 3.7 per cent of GDP. The actual improvement in the terms of trade would have been much larger but for the fact that the Cocoa Marketing Board had sold a substantial part of the 1968/69 crop by the middle of 1968 and was therefore unable to take advantage of further world price increases in the second half of that year. In addition to the higher cocoa prices increases were registered for the prices of sawn timber and logs.

Investment and savings

During 1968 and 1969 the level of gross fixed capital formation was about 10 per cent below the relatively low level recorded in 1967, when investment was about 12 per cent of GDP. The *Two-year Plan* did not aim at a rising investment level but stressed the need for improved organisation and utilisation of installed capacity. Given the actual growth rates in 1968 and 1969, this policy apparently met with success. Assuming a one-year lag between investment and changes in output, it can be computed that the incremental capital output ratio, which was 5:1 in the early

1960's fell to 3:1 in 1968 and 1969, implying a considerable improvement in capacity utilisation. However, as idle capacity becomes exhausted the incremental capital output ratio may rise again. This clearly underscores the need for higher savings levels to support the increased investment required for accelerated growth.

Although the *Two-year Plan* aimed at closing the savings-investment gap by holding investment (proportional to GNP) relatively constant and raising the savings rate, this result was not achieved, as is shown in Table 2–3 below. This poses a serious problem since inadequate savings are bound to retard future growth.

TABLE 2–3

GROSS NATIONAL SAVINGS AND INVESTMENT RATES

(% of GNP in current prices)

	1967	1968	1969 (Provisional)
Consumption	90.7	90.0	89.2
Gross national savings	9.3	10.0	10.8
Gross investment	12.5	11.1	11.3
Savings gap	3.2	1.1	0.5

One factor in bringing about this result was the continued rise in the level of consumption. Whereas the *Two-year Plan* projected an increase in real consumption of about 9 per cent, it is estimated that total consumption rose by 11.6 per cent, more than the rise in constant-price GNP. It was only the improvement in the terms of trade that prevented consumption from rising as a proportion of current-price GNP.

Both private and public consumption exceeded the Plan limits, indicating that the policy of curbing consumption expenditures was not effective enough. If the nation is to achieve sustained economic growth it is imperative that the savings and investment rates be raised. Both fiscal and monetary policies can be important policy tools for achieving this end.

Public finance

Financial policies play an important role in raising the level of national savings. It is therefore of some importance to analyse revenues and expenditure figures for the central Government for 1968/69 and 1969/70.

TABLE 2–4

CENTRAL GOVERNMENT REVENUES AND EXPENDITURE

(N₵ millions)

Item	1968/69 Plan	1968/69 Actuals	1969/70 Plan	1969/70 Estimated Actual
1. Recurrent expenditure (excluding foreign debt) ..	285	290	298	311
2. Foreign debt servicing ..	40	27	35	33
3. Total recurrent expenditure	325	317	333	344
4. Current revenues	340	291	365	361
5. Balance on current account	+15	–29	+32	+17
6. Capital receipts	89	45	85	66
7. Capital expenditure	105	65	117	90
8. Overall surplus (deficit) ..	—	–46	—	–7

A first characteristic of the figures in Table 2–4 is the increase in recurrent expenditure in excess of the Plan projections. This is due to the implementation of the Mills-Odoi Report on public service salaries and pensions, which raised the level of recurrent expenditures by about N₵7 million in 1968/69 and by about N₵14 million in 1969/70. Excluding these increases, the rise in recurrent expenditures was in line with the Plan figures both in 1968/69, and in Plan projections in 1969/70.

Together with shortfalls in current revenues, especially in 1968/69, the balance on current account showed disappointing results. Taking the two years together the Government had a current deficit of N₵9 million as against a projected surplus of N₵47 million, which means that there was a negative contribution from the Government's current resources to the financing of capital expenditures.

Moreover, the capital receipts also fell short of the projections, particularly receipts of foreign aid. Whereas the *Plan* expected annual external receipts of about N₵55 to N₵65 million, the actuals amounted to only N₵21.9 million in 1968/69 and N₵39 million in 1969/70. As a result the balance of external debt service payments and capital receipts from external resources (excluding I.M.F.) was actually negative in 1968/69, viz. N₵5.1 million, while in 1969/70 this balance shows, provisionally, a net inflow of only N₵13.5 million. These past developments clearly indicate the importance of additional external assistance for future levels of development expenditures.

The shortfalls in both internal and external funds resulted in a much lower than projected level of capital expenditures. Taking into consideration that it is not unusual to have a slippage of 10–15 per cent in budgeted capital expenditures, owing to technical delays in implementing development projects, 20–25 per cent of the under-spending of the development budget must have been caused by the shortage of funds. Without rather substantial bank borrowing the level of capital expenditures would have been even lower.

Though the overall outcome of the budget for the past two years clearly fell short of plan targets, 1969/70 was more satisfactory than 1968/69, largely because the actual level of current revenues showed a marked increase. This was due in part to a recovery in non-cocoa revenues but a major factor was the sharp rise in cocoa export duties, as shown in Table 2–5 below.

TABLE 2–5

GOVERNMENT CURRENT REVENUES

(N¢ million)

	1967/68		1968/69		1969/70 (*Provisional*)	
Item	*Value*	*Per cent*	*Value*	*Per cent*	*Value*	*Per cent*
Taxes on foreign trade	129.1	(43.0)	129.5	(44.5)	182.7	(50.6)
Cocoa export duties	69.0	(23.0)	72.9	(25.0)	112.0	(31.0)
Import duties (including special surcharge)	59.4	(19.8)	55.9	(19.2)	70.0	(19.4)
Others	0.7	(0.2)	0.7	(0.2)	0.7	(0.2)
Taxes on domestic production and expenditure	68.7	(22.9)	71.1	(24.4)	75.6	(21.0)
Excise and local duties	30.6	(10.2)	32.1	(11.0)	29.2	(8.1)
Sales tax	24.3	(8.1)	27.2	(9.3)	33.2	(9.2)
Others	13.8	(4.6)	11.8	(4.1)	13.2	(3.7)
Taxes on income and property	57.5	(19.2)	59.5	(20.4)	67.2	(18.6)
Personal income tax	19.4	(6.5)	24.3	(8.3)	26.6	(7.4)
Company tax	27.2	(9.1)	29.1	(10.0)	35.8	(9.9)
Others	10.9	(3.6)	6.1	(2.1)	4.8	(1.3)
Non-tax revenue	44.9	(15.0)	31.2	(10.7)	35.1	(9.7)
TOTAL CURRENT REVENUES	300.2	100.0	291.2	100.0	360.6	100.0

Of the N¢60 million increase in current revenues in the past two fiscal years N¢43 million was due to higher cocoa export duties, resulting from the rise in the world cocoa price. This revenue increase could even have been N¢55 million more had the Cocoa Marketing Board paid taxes promptly on its declared shipments. Non-cocoa revenues went up from N¢231 million in 1967/68 to N¢248 million in 1969/70 or by 7 per cent, as against an estimated increase in national income (in current prices) of more than 20 per cent. Both the fluctuations in cocoa revenues and the low income elasticity of other current revenues illustrate a structural weakness in Government receipts.

In order to rationalize revenue receipts a Tax Review Commission has been set up to advise on reforms in the tax structure. Also as a stabilization device a sum of N¢18 million has been set aside in an Investment Reserve Fund out of the N¢112 million cocoa duties received in 1969/70, and it has in addition been decided to set aside for future use a part of the N¢55 million owed to the Government by the Cocoa Marketing Board, when it is received.

Monetary policies and price developments

The Two-year Plan did not attempt to specify any desired increase in monetary supply but merely stated that the effect of Government transactions on the monetary situation should be such as to have a "neutral" effect, so that an appreciable increase in credit to the private sector could be achieved without causing inflationary pressures. Table 2–6 shows the sources and uses of bank credit during the period 1967 to 1969, valued at current prices, that is nominal credit, and at constant prices, that is, in terms of the actual purchasing power of credit extended.

In current prices credit increased by N¢86.7 million during the two-year period. Foreign assets accounted for over 40 per cent of this increase while changes in money supply accounted for 30 per cent, time and savings deposits for 25 per cent and other liabilities for about 3 per cent. Expressed in real terms, however, a vastly different picture emerges. The total increase amounted to only N¢21 million for the period 1967 to 1969 and the real value of the money supply and other liabilities actually declined. The primary source of real credit expansion was foreign assets, indicating again the economy's reliance on external capital receipts.

The Government absorbed about two-thirds of the increase in credit extended in both nominal and real terms, and the private sector, together with public institutions, the remaining one-third. There was, however, a noticeable difference in the share of credit extended to the two sectors during the two-year period. In 1968 the Government was the major credit user, there being a decline in real credit available to the non-government sector, whilst in 1969 the private sector and public institutions were the major users of credit, especially when account is taken of the changes in the price level.

On the whole, the data presented in Table 2–6 indicates the failure of the financial system to attract real savings, especially domestic savings. The result is a continued stagnation in the real resources monetary flows,

thus forcing the Government to rely heavily on tax revenues and external receipts to finance its current and capital budgets. In addition, the private sector continues to be denied access to capital, thus retarding its growth. It will be the Government's policy over the coming year to review the monetary and financial system so as to increase its capacity to provide more adequate incentives for savers to hold money and other assets, thus permitting it to mobilise a larger volume of real resources which may be devoted to the further expansion of both private and public sectors of the economy.

Table 2-6

SOURCES AND USES OF BANK CREDIT (*)

(N¢ millions)

	Current Prices			*Changes*		*Constant Prices* (*)			*Changes*	
	1967	1968	1969	1967–68	1968–69	1967	1968	1969	1967–68	1968–69
Sources										
Money	219.6	231.2	241.7	11.6	14.5	260.2	253.7	251.3	-6.5	-2.4
Time and savings deposits	73.5	86.4	95.5	12.9	9.1	87.0	94.6	97.5	7.6	2.9
Other liabilities	89.6	95.5	92.0	5.9	-3.5	106.2	104.9	94.0	-1.3	-10.9
Foreign exchange	33.4	47.4	69.6	14.0	22.2	39.8	51.9	71.4	12.1	19.5
TOTAL (*)	416.1	460.5	502.8	44.4	42.3	493.2	505.1	514.2	11.9	9.1
Uses										
Credit to public institutions and private sector	155.5	165.9	187.3	10.4	21.4	184.6	182.4	191.7	-2.2	9.3
Credit to Government	260.5	294.6	315.5	34.1	20.9	308.7	322.7	322.7	14.0	—
TOTAL	416.0	460.5	502.8	44.5	42.3	493.3	505.1	514.4	11.8	9.3

Notes.—(*) Data refer to annual averages of month-end data.

(*) Deflated by consumer price index on a quarterly basis with the first quarter, 1970 as base.

(*) Totals may not add up due to rounding.

As regards price developments, the *Two-year Plan* projected a price increase of only 4 per cent. By contrast the consumer price index, as shown in Table 2–7, increased by nearly 16 per cent over the period 1967 to 1969.

TABLE 2–7

CONSUMER PRICE INDEX (1967=100)

	Items					
	Total	*Local food*	*Textiles and clothing*	*Fuel and lighting*	*Drink and tobacco*	*Other items*
(*Weight*)	(100.0)	(52.1)	(13.8)	(8.0)	(5.3)	(20.8)
1967 ..	100.0	100.0	100.0	100.0	100.0	100.0
1968 ..	108.1	108.8	109.7	104.6	101.5	108.3
1969 ..	115.8	118.1	118.7	111.6	103.4	111.6

Two factors peculiar to this period were influential in the rapid increase in the consumer price index. First, the devaluation of July 1967 raised prices of imported goods and this price rise was partly reflected in the price of domestic manufactures as well. Second, the continued failure of the agricultural sector to keep pace with the growth of demand, exacerbated by the heavy rains of 1968 and transportation difficulties, all contributed to the rise in the price of local food items. The persistent stagnation of agricultural production tends to impart an inflationary bias to the economy. These and other factors indicate that a general inflationary tendency continues to prevail in the economy.

3. ECONOMIC PROBLEMS AND POLICY OBJECTIVES FOR 1970/71

The review of economic developments during the period 1967 to 1969 has clearly indicated that a number of pervasive problems continue to confront the economy. Among the more pressing are:

(i) the failure of the economy to achieve a sustained high rate growth which would permit substantial increases in *per capita* income;

(ii) a low saving rate, clearly insufficient if development is to become self-sustaining; and continued rapid increases in consumption, both private and public;

(iii) persistent increases in prices; and

(iv) continued stagnation in agricultural production.

Although the high world cocoa prices provided some temporary relief during the period mid-1968 through 1969, the expected decline in cocoa prices over the near future and the failure of other exports to increase, implies a continued scarcity of foreign exchange and a constraint on growth.

The nation also faces a serious unemployment problem. During the stabilization period many labourers had to be laid off and in the subsequent two years the absorptive capacity for new jobs was extremely limited. While the Government's policy *vis-à-vis* aliens has opened job opportunities for Ghanaians the unemployment problem remains pressing. At the same time severe shortages of skilled labour persist, especially in the technical upper management occupations. The urban unemployment problem is aggravated by the continued inflow of rural workers, which is partly due to the unequal urban-rural income distribution and the lack of basic social amenities in the rural areas.

Many of these problems are not tractable in the short run. Nor will Government action alone resolve them. Rather it will require the dedication of every Ghanaian supported by the generous and sustained assistance of the developed countries. However, the Government must define overall priorities in the use of scarce resources and ensure that policy measures are adopted which will allow these priorities to be reflected throughout the economy by price incentives.

The Government accords the highest priority to increasing agricultural productivity, including the improvement of Ghana's competitive position among world cocoa producers and the application of known technologies to achieve increases in the production of food and other agricultural crops. Through the application of improved inputs and practices substantial progress can be made toward increasing farm employment and income, thereby reducing urban-rural income inequalities. Such a policy will also serve to increase and stabilize the supply of foodstuffs and decrease the dependence on imported foodstuffs.

The Government will take concrete steps during 1970/71 to encourage farmers to increase production by expanding agricultural credits, improving the quality of its extension service and increasing the supply of improved inputs, particularly seeds and fertilizers. While the whole

agricultural sector will benefit from these programmes it is the Government's intention to emphasise the expansion of food crops such as rice and maize as well as livestock. There is a considerable potential for increasing production as well as through the application of known technologies and by ensuring an adequate supply of the requisite inputs and machinery.

The Government will also seek to improve the efficiency of existing marketing systems for domestic agricultural products. If gains made in the area of increasing food production are to be maintained efforts must be made to improve the availability and dependability of markets for agriculture inputs and products. Through the activities of the Food Marketing Corporation and the Task Force for Food Distribution, the Government will seek to improve the assembly and distribution systems for basic foodstuffs through an organisation of buying and selling agents and the provision of transport facilities. It will ensure greater price stability for producers and consumers through the establishment of producer and consumer prices and the reduction of marketing costs and reduce storage losses and costs through the provision of large-scale storage facilities for basic commodities, particularly maize. The Government will also enlarge the concept of extension to cover personnel engaged in marketing so as to increase their efficiency and assist them in lowering their costs. To this end technical assistance and credit will be given for storage and marketing projects.

In addition particular attention will be given to the cocoa sector. For many years to come cocoa will continue to be the major foreign exchange earner. Given the opportunity cost of foreign exchange it is crucial that steps be taken to maximise the country's earnings from cocoa. Ghana should aim at an increase in her production to match the expected gradual increases in world demand for cocoa. Unfortunately the cocoa industry has been marked by reduced farm maintenances, an inadequate level of new planting and a declining trend in output in recent years, as a result of the failure to control disease, provide adequate extension services and, until recently, pay farmers an attractive price. Intensified disease control and cocoa rehabilitation programme were initiated by the Government in 1969/70. The latter will be extended with financial assistance to be provided by the World Bank. Steps will also be taken to strengthen the research staff of the Cocoa Marketing Board and to improve the Board's sales policy so as to realise a higher average price for Ghana's cocoa exports.

To achieve self-sustaining growth, activities in the non-agricultural sectors must be expanded as well. Given the shortages of resources—domestic savings, skilled labour and foreign exchange—industrial development must aim in the short run at a further increase in the use of existing installed capacity through the adequate provision of raw materials. The efficient use of foreign exchange will require tariff adjustments so as to reflect the relative scarcity of imports to all users. At the same time incentives must be provided for exports, as a means of increasing domestic production, savings and foreign exchange earnings, through a system of price incentives to exporters and a simplification of the administrative procedures presently employed to control foreign exchange transactions.

More realistic prices for imports and exports will stimulate further import substitution and encourage the use of indigenous raw materials and labour in construction and manufacturing. Project selection, especially in the construction sector, should emphasise simple and efficient projects rather than prestigious and glamorous ones. The educational system must aim at producing a better trained labour force. This will require a restructuring of the present curriculum so as to make it more relevant to the skill needs of the economy, and a more effective combination of work experience with formal training.

Many of the above measures will contribute to an improvement in the balance of payments position. In addition, the debt relief recently provided will free resources for development. But a continued need for substantial capital assistance, on true aid terms, will continue to exist for some time. In addition the Government recognises the potential contribution that foreign private capital can make and welcomes such assistance for projects which exhibit a high return to the national economy. While the use of foreign skilled labour will be required in the immediate future to supplement the nation's own pool of skilled talent the ultimate goal is to ensure that Ghana's development will benefit her own people. The Ghanaian Business (Promotion) Act will enable the Government to move towards this goal by assisting Ghanaians in acquiring an increasing share of the economy's trading and other activities.

Compared with other low income countries Ghana has a reasonably adequate infrastructure, especially in terms of electricity supply and trunk roads. However, the standard of rural and feeder roads is low and substantial resources will be devoted towards improving these. In 1969/70 nearly N¢5 million of budgetary resources were allocated for feeder road construction in addition to the feeder road construction activities of the Cocoa Marketing Board in special cocoa areas. The Government's budget for 1970/71 has again provided resources for rural and feeder road construction on a large scale. Preparations are well in hand for a rural electrification programme and improvements are planned in the telecommunications networks covering the various regions.

Improvements in the living standards of the rural areas should not be measured in terms of economic facilities alone. The supply of potable drinking water, health and sanitary facilities, better housing, educational facilities and elementary community projects are equally important in promoting economic development. The Government recognises that success in agriculture cannot be achieved without provision of these amenities. The 1970/71 capital budget therefore contains substantial allocations for water, health, education and community development projects in addition to the amounts budgeted for rural roads and electrification.

The capital budget for 1970/71 has been increased substantially to provide adequate resources for these programmes. Efforts have been made to hold down the increase in recurrent expenditures so that more resources will be available for development spending. Nevertheless,

financing of the budget will be difficult. Tax revenues, especially non-cocoa taxes, have in the past lagged behind the growth in income and recurrent expenditures, especially when price changes are taken into account. In addition, monetary policies have not offered a real incentive to domestic savers and have exacerbated the balance of payments problem. Improvements in the fiscal and monetary systems could make a major contribution to raising the savings rate and the resources available to finance private and public investment. Fiscal reform measures are presently being considered. They will aim at reducing some of the disincentives and inequities of the present tax system and ensuring that an increasing flow of real resources is made available to the Government for development purposes. The Government recognises the inequitable burden and distortions that are introduced into the economy from the persistent inflationary pressures. It will be an objective of the Government to encourage the development of a capital market and thus permit of a more rapid expansion of money supply and credit while ensuring reasonable price stability.

The Government's primary objective, as expressed in this plan and the 1970/71 budget continues to be the attainment of rapid self-sustaining growth, the benefits of which will be shared by all sections of the population and by all regions. Only by reconciling the economic and social aspects of national development can a successful development process be undertaken and the nation's democratic institutions be strengthened.

4.–PRODUCTION AND EXPENDITURES, 1970/71

Although over the medium-term the Government's objective is to accelerate the economy's rate of growth to at least 5 per cent per annum, it is unlikely that this target rate of growth can be achieved in 1970/71. The growth potential for the immediate future will be determined largely by past investment levels, the possibility of further increases in the levels of capacity utilization, and any improvement in agricultural production due to the adoption of new technologies. Past investment levels of 11 per cent of Gross Domestic Product place a clear constraint on the expected growth in the short run. Even with a continuation of the favourable capital output ratio which apparently characterised the economy in 1969/70 (*see* chapter 2), the likely growth in gross domestic product in 1970/71 would only be around 3.5 per cent. There remains the possibility, however, that the greater efforts to raise the standard of economic performance that have been made in the last two or three years, especially in agriculture, in addition to the measures outlined in this Plan will result in a more favourable out-turn.

Given these uncertainties a range of likely growth rates for various sectors and total G.D.P. has been posited. For total G.D.P. the projection ranges from 3.5 per cent to 5.0 per cent. Table 4–1 shows the sectoral growth rates associated with this projection.

TABLE 4–1

PLANNED SECTORAL GROWTH RATES, 1970/71

(*per cent*)

Sector	GROWTH RATE	
	Low	*Moderate*
Agriculture and forestry	3.0	4.0
Cocoa	1.0	3.0
Fishing	5.0	7.0
Mining	-1.0	2.0
Construction	5.0	7.0
Manufacturing	10.0	15.0
Fuel and electricity	5.0	7.0
Services	3.0	4.0
Total G.D.P.	3.5	5.0

Although the Government accords the highest priority to increasing agricultural production and has allocated considerable resources to this sector in the 1970/71 budget, the effects of such programmes are unlikely to yield major results in the coming year. Even so a growth rate of 3 to 4 per cent implies an improvement in agricultural production as compared with the record of the recent past.

Over the medium-term cocoa production should be increased at a rate at least equal to the expected increase in world demand at about 4.0 per cent per annum. However, in 1969/70 favourable weather conditions led to a 1969 mid-crop and 1969/70 main crop of slightly more than 400,000 tons. Given the rather favourable conditions in 1969/70 the increase in 1970/71 may be less than the long-term target growth rate of 4 per cent.

The fish catch is expected to show a further response to the increased availability of spare parts and other imported inputs required by the fishing industry which have been placed on Open General Licence. The possibility of a further reduction in the mining sector's output is based on an analysis of past trends and the depletion of known deposits. The construction sector is expected to continue the growth rate of last year. Increased activity is envisaged in housing and road construction as well as for water supply projects. The emergence of domestic demand constraints are likely to reduce the growth in manufacturing output as compared to the past two years. Nevertheless some further import substitution is expected to occur in certain sub-sectors and the expected rise in domestic expenditures will call for higher production levels. Although a major increase in electricity generation cannot be expected before the commissioning of the fifth and sixth generators at Akosombo dam, the increased expenditure levels and the sectoral production targets imply a growth in the electricity and fuel sector somewhat above that of total G.D.P. By contrast the rate of increase of the services sector is expected to be less than the rate of G.D.P.

As previously noted, there is an urgent need to raise the economy's savings rate in order to finance the levels of capital formation which are called for if the growth rate is to be accelerated. In turn this objective will call for measures to restrain consumption, both public and private, so as to free resources for investment and exports. The tax measures introduced in the 1970/71 budget, discussed in the following chapter, and the incentives to be provided to non-cocoa exports should help to restrain private consumption. There are, however, limits on the restraints that can be imposed on private consumption in the short run. Given the low income and consumption levels that already prevail in the economy it would be unrealistic to posit an increase in consumption that did not maintain real *per capita* consumption levels. Thus, as a minimum real private consumption should increase by 3.0 per cent. At the same time more than half of private consumption expenditure is devoted to local foods while at present agricultural production (other than cocoa) largely consists of foodstuffs. Hence an increase in agricultural production implies an increased provision of consumption goods and thus an increase in local food consumption. Given these factors private consumption expenditure is expected to increase by 3.0 to 4.5 per cent, or by 0.5 per cent less than the expected increase in gross domestic production. In the past Government consumption expenditures, have exhibited large increases. It is expected however that in 1970/71 the increase in real public con sumption will be kept to 3.0 per cent. Assuming that consumption will be effectively restrained within the limits set, a rise in domestic savings rate of 0.5 to 0.7 would be realised.

Fixed investment expenditures are expected to rise by some 35 per cent, largely as a result of an increase in government capital expenditures. Depending upon the availability of resources and implementation capacity, the level of government investment is expected to reach a level of N₵130 to N₵140 million. This would imply that the capital budget is under-spent by about 8 to 12 per cent. The shortfall is expected to occur because of technical delays in the implementation of the capital projects included in the budget estimates. Should it become possible to achieve a higher level of government investment, additional external resources will be called for. Private investment and other non-central government investments may increase by N₵20 to N₵26 million. Data on changes in stocks are scarce but the stock position improved considerably in 1969/70, largely as a result of a rapid increase in imports. While stocks, especially of imported raw materials, were extremely low in the past, thus forcing production to slow down or even halt when raw material imports were not received on time, it now appears that efficiency can be maintained even if present stock levels are reduced somewhat. The low growth projection envisages a N₵5 million reduction in stocks, in part necessitated by the scarcity of resources, but also made possible by the lower production levels incorporated in this projection which implies that production efficiency can be maintained with a lower level of stocks. The moderate growth assumption projects, on balance, no change in stocks since the higher production targets for this growth rate will require larger stocks if plants are to continue operating efficiently.

The various expenditure estimates are shown in Table 4–2. It should be noted that the estimates in Table 4–2 are based on constant 1969/70 prices except for cocoa where account has been taken of the expected decline in the world market price for cocoa from the actual levels realised in 1969/70. Cocoa, therefore, has been valued at expected 1970/71 prices.

TABLE 4-2

EXPENDITURE ON GROSS DOMESTIC PRODUCT 1969/70–1970/71(a)

	1969/70 (N¢m)	1970/71 (N¢m)		Percentage change	
		Low	*Moderate*	*Low*	*Moderate*
1. Private Consumption ..	1,650	1,700	1,724	3.0	4.5
2. Public Consumption ..	418	430	430	3.0	3.0
3. Investment .. .. of which:	245	294	304	22.0	24.1
(a) Central Government financed(b)	(90)	(130)	(140)	(44.4)	(55.5)
(*b*) Other	(155)	(164)	(164)	(5.8)	(5.8)
4. Changes in stocks ..	20	–5	0	—	—
5. Exports of goods and non factor services ..	414	420	435	1.4	5.1
6. Expenditure on GDP plus imports (1+2+3+4+5) ..	2,747	2,839	2,893	3.3	5.3
7. *Less:* Imports of goods and non-factor services	438(b)	449	468	2.5	6.8
8. Expenditure on GDP (7–6)	2,309	2,390	2,425	3.5	5.0

(a) All values in constant 1969/70 prices, except for cocoa which has been valued at expected 1970/71 prices.

(b) Includes purchase of two ships valued at N¢7.4 million.

Export earnings from goods and non-factor services are expected to show only a modest improvement; the increase in export earnings is not sufficient to match the limited rise in import demand generated by the expenditure targets. As a result, the financing of the external gap will call for an increase in external assistance, as detailed in Chapter 6.

5. FISCAL AND MONETARY POLICIES

The capital budget is one of the major instruments through which the Government implements its development objectives. The 1970/71 budget aims at sharply accelerating the level of Government investment and the composition of the capital budget reflects the Government's development priorities with larger allocations for agriculture, rural infrastructure, low cost housing and the National Service Corps. It is expected that the implementation of this budget will lead to a higher rate of growth in the economy in the coming years and foster a pattern of development which will allow the various regions of the country to share equitably in the benefits of economic growth.

The 1970/71 capital budget contains an allocation for N¢137.5 million with an additional N¢21.9 million to be financed through a combination of budgetary and banking or private capital, for a total level of capital expenditure of N¢159.4 million. In 1969/70 the capital budget provided for a level of expenditure of N¢117.3 million, excluding N¢5 million for a reserve fund, but actual capital expenditures are provisionally estimated at N¢90.0 million. Given the past experience as regards actual implementation, it is estimated that the level of capital expenditure in the coming year, for above and below the line items, will be N¢130–140 million. This would nevertheless imply an increase of 50 per cent in Government's investment programme. Table 5–1 provides a summary breakdown of the capital budget.

TABLE 5–1

SUMMARY OF CAPITAL BUDGETS 1969/70 AND 1970/71(*)

(N¢ millions)

Sectors	1969/70	1970/71 *Budget*	1970/71 *Below the Line*	1970/71 *Total*	*Percentage Share* 1969/70	*Percentage Share* 1970/71
1. Economic	66.6	73.0	14.3	87.3	56.8	54.8
2. Social	29.6	36.5	7.6	44.1	25.3	27.7
3. Administrative	18.6	26.0	—	26.0	15.8	16.3
4. Unallocated	2.5	2.0	—	2.0	2.1	1.2
Total(*)	117.3	137.5	21.9	159.4	100.0	100.0

(*) *See* Appendix Tables to this chapter for details.

The allocation to the economic sectors has been increased by N¢20.7 million. This is concentrated in the agriculture sector (N¢5.5 million), the various programmes under the supervision of the Public Works Department (N¢3.9 million), communications (N¢4.1 million), the Volta River Authority (N¢1.1 million), and electricity (N¢1.4 million). In all these sector programmes the needs of the rural areas are being given highest priority. The higher vote for the social sectors, an increase of N¢14.5 million, reflects a much larger allocation for health to allow for the completion of some large on-going schemes, in addition to allocations for the National Service Corps and the Ministry of Youth and Rural Development. Furthermore, N¢1.7 million has been added to the budget for education, largely for the expansion of secondary and technical schools, an addition of N¢0.8 million has been provided for water and sewerage schemes, and the housing budget has been increased by N¢1.3 million. In terms of the locations of various projects included in the allocation for water and sewerage, the 1970/71 budget provides for 53 per cent of such expenditure in the rural areas as compared to 44 per cent in the 1969/70 budget. The allocation for local government has been doubled to N¢1.6 million to help strengthen regional organisations and implement the Government's decentralisation policy. The capital expenditure on defence has not been increased but the allocation for the police has been raised by N¢1.6 million.

The capital budget provides a smaller share for the economic sectors as compared to the 1969/70 budget, whilst the share of the social and administrative sectors has risen. Three factors account for these shifts. First, in the economic sector, the need for budgetary support for the Ghana Industrial Holding Corporation (GIHOC) and for the State Farms has been reduced reflecting the growing viability of these enterprises. Second, in recent years the shortage of investment has been felt most severely by the social sectors so that there was a need to increase the relative allocation to such sectors. Finally the return to civilian rule entails various provisions which affect the allocation for the administrative sector.

As regards recurrent expenditures, the 1970/71 budget allows for an increase of only 3.7 per cent in such expenditures, excluding debt servicing. This relatively modest increase reflects the Government's policy to hold overall personnel levels at present levels and recognises the possibility of reducing recurrent expenditures in some sectors. Past experience has shown that the frequent and unrestrained approvals of supplementary expenditures have encouraged excess spending in some sectors. The Government has therefore adopted the principle that during this fiscal year no supplementary provisions will be accepted unless offset by savings elsewhere or by supplementary revenue measures.

Cocoa export duties continue to be the main source of Government revenue. As such revenues are subject to severe fluctuations, given the instability of the world cocoa market, Government expenditure is also subject to fluctuations. The brunt of these irregular movements in Government revenue tends to be borne by downward adjustments to the level of capital expenditure. The Government has therefore decided to place

part of the cocoa export duty revenues received during years when the world cocoa price exceeds the medium-term expected price in a reserve fund and use such resources when the world cocoa price, and hence Government revenues, falls below the medium-term trend. In 1969/70 only N₵94 million(¹) of cocoa export duties were used to finance the Government's budget. Moreover, the arrears due from the C.M.B. will be partly set aside in the reserve fund.

Non-cocoa revenues, at existing rates, are estimated to increase by about 4.0 per cent. Ordinary revenue, excluding cocoa export duties, will increase from N₵248.6 million in 1969/70 to N₵258.5 million in 1970/71. The additional tax measures introduced are estimated to raise N₵55.4 million of revenues. This is comprised of N₵7.6 million from changes in the import duties, N₵43.3 million from the temporary import surcharges, and N₵4.5 million from the special development levy on rice, sugar, and cement, and from other tax changes. The tax changes will not only yield additional revenues for the Government but also bring the price structure into a closer relationship with the actual scarcity of foreign exchange. The higher duty on capital goods will also increase the incentive to investors to substitute labour for scarce capital and hence increase employment opportunities. The extension of the O.G.L. (Open General Licence) system coupled with higher surcharges will transfer to the Government monopoly profits previously earned by recipients of licences. The increase in taxes is a clear indication of the Government's earnest desire to raise savings and channel resources into productive investment. Table 5–2 portrays the financing of the budget.

(¹) Of the N₵112 million actually received, an amount of N₵18 million was put in the Investment Reserve Fund.

TABLE 5–2

CENTRAL GOVERNMENT REVENUE AND EXPENDITURE

(N¢ million)

	1969/70 (*Provisional Actuals*)	1970/71 (*Estimates*)
	N¢	N¢
1. Recurrent expenditure (excluding debt servicing)	280.0	290.4
2. Current revenues		
(*a*) Non-cocoa revenues at existing rates	248.6	258.5
(*b*) Tax changes 1970–71	—	55.4
(*c*) Reduction in commercial motor licences	—	–2.0
(*d*) Cocoa export duty	112.0	114.8
Total current revenues	360.6	426.7
3. Balance on above	80.6	136.3
4. Debt servicing		
(*a*) Internal debt	31.0	34.0
(*b*) External debt (including I.M.F.)	32.5	57.9
Total debt servicing	63.5	91.9
5. Balance on above	17.1	44.4
6. Capital receipts		
(*a*) Domestic non-bank borrowing	26.6	30.0
(*b*) Premium bonds	—	5.0
(*c*) Contribution from reserves	—	15.0
(*d*) Aid receipts	39.0	50.0
Total capital receipts	65.6	100.0
7. Available for capital budget	82.7	144.4
8. Capital expenditure	90.0	137.5(1)
9. Overall balance	–7.3	+6.9

(1) Excludes N¢21.9 million "below the line" items.

The combined effect of holding down the increase in recurrent expenditure and raising various taxes is expected to be that the surplus on the current account of the budget—which indicates Government's contribution to the national savings—will increase from N¢17.1 million to N¢44.4 million, despite the substantial rise in debt service payments. These savings will be supplemented by other domestic savings, estimated at N¢35 million and by aid receipts of about N¢50 million to finance the development expenditures. In addition an amount of N¢15 million of existing cocoa reserves will be activated, while it is deemed prudent to raise from the banking system a net amount of N¢12 million in fiscal year 1970/71. This would result in an overall improvement in Government's cash position of N¢18.9 million.

Funds have also to be provided for financing "below the line" items. Various of these items aim at supplying credits so as to get a higher level of production in agriculture and industry, through loans to the Agricultural Development Bank, the National Investment Bank and the Co-operative Bank as well as by supplying resources for small business credits and for export credit financing. The level of bank-borrowing by the Government, together with the money creation for the financing of a part of the "below the line" items should permit some real expansion of credit to the private sector.

However, the Government is well aware of the need not to increase the money supply beyond limits set by the desire for reasonable price stability. Moreover, the monetary system can and should play an important role in promoting national savings, especially by a more rewarding interest rate. A first step to achieve this goal has been a rise in the interest which the Post Office Savings Bank will pay on deposits, from 2½ per cent to 5 per cent. Taking into account past price developments, the existing interest rate was in fact a negative price for offering savings to the financial system. The combination of reasonable price stability and higher interest rates should encourage potential savers to increase their financial assets held by the banking system, thus enabling the country to finance a higher level of investment from its own resources.

Appendix to Chapter 5

ALLOCATION OF GOVERNMENT CAPITAL BUDGET ESTIMATES BY SECTOR[a]

(N¢ millions)

Sectors	1969/70	1970/71 Above the Line	1970/71 Below the Line	1970/71 Total
I. Economic Sector				
1. Agriculture	12.3	12.0	2.1	14.1
2. Agricultural Development Bank	1.5	4.0	1.2	5.2
3. Forestry	0.7	2.3	—	2.3
4. Mining	4.2	3.6	—	3.6
5. Industries	6.9	0.7	2.3	3.0
6. National Investment Bank	1.7	1.0	4.0	5.0
7. African Development Bank	1.0	1.0	—	1.0
8. P.W.D.	23.9	27.8	—	27.8
9. Communications	6.0	9.2	0.9	10.1
10. Trade	0.5	0.6	0.3	0.9
11. V.R.A.	1.9	3.0	—	3.0
12. Electricity	0.8	2.2	—	2.2
13. Economic Planning	3.1	3.3	—	3.3
14. Council for Scientific and Industrial Research	2.1	2.2		2.2
15. Credit facilities (Co-operative Bank, Small Business, Export Promotion)	—	—	3.5	3.5
Total Economic Sector	66.6	73.0	14.3	87.3
II. Social Sector				
1. Education	10.2	11.9	—	11.9
2. Culture and Sports	0.6	0.7	—	0.7
3. Health	4.2	9.5	—	9.5
4. Water and Sewerage	7.5	8.3	—	8.3
5. Housing[b]	5.9	0.2	7.0	7.2
6. Local Government	0.8	1.0	0.6	1.6
7. Labour and Co-operatives	0.4	0.2	—	0.2
8. National Service Corps	—	2.0	—	2.0
9. Youth and Rural Development	—	2.7	—	2.7
Total Social Sector	29.6	36.5	7.6	44.1

(a) Approved Estimates.
(b) Including N¢0.2 million under Economic Planning.

Appendix to Chapter 5—contd.

(N¢ million)

Sectors	1970/71	1969/70 *Above the Line*	1969/70 *Below the Line*	1969/70 *Total*
III. Administrative Sector				
1. Ministry of Works and Housing	0.3	0.4	—	0.4
2. Information	1.6	1.6	—	1.6
3. Office of the Prime Minister	3.4	6.0	—	6.0
4. Electoral Commission ..	—	2.0	—	2.0
5. Justice	0.2	0.7	—	0.7
6. Internal Administration (including police)	3.1	4.5	—	4.5
7. External Affairs	0.6	0.8	—	0.8
8. Fiscal Administration ..	0.4	0.5	—	0.5
9. Economic Planning	—	0.4	—	0.4
10. Defence	9.0	9.0	—	9.0
Total Administrative Sector	18.6	26.0	—	26.0
Unallocated	2.5	2.0	—	2.0
Grand Total .. .	117.3	137.5	21.9	159.4

6. EXTERNAL TRADE AND THE BALANCE OF PAYMENTS

A persistent shortage of foreign exchange continues to be a major constraint on the rate of growth which the Ghanaian economy can achieve. In addition, the high dependence on cocoa exports causes sharp year-to-year fluctuations in the availability of foreign exchange and hence in the production and investment levels that can be sustained. Despite the 30 per cent devaluation of the cedi in 1967, non-cocoa exports have not shown any rapid increase. As a consequence, the direct control of imports through licensing has been continued. Although the coverage of the Open General Licence (O.G.L.) scheme had been extended, so that it covered nearly one-third of commodity imports, the continued use of specific licences has tended to perpetuate distortions in the productive structure of the economy. This situation has been compounded by a tariff structure which does not reflect domestic conditions and policy objectives and which led to a situation in which the actual cost of imports does not reflect the real scarcity value of foreign exchange.

Policy measures introduced in 1970/71 will rationalise the allocative procedure for foreign exchange and there are prospects for a higher rate of growth of exports other than cocoa. The proposed policy measures will improve the efficiency of the management of scarce external resources and increase the profitability of exports while reducing the incentive to participate in illegal trade. Over the longer-run these measures will increase domestic production and foreign earnings and diversify the commodity structure of exports.

The balance of payments, 1968–69

The balance of payments situation showed a further improvement in 1968 when the current account deficit declined to N₵51.2 million as compared to N₵86.3 million in 1967. This improvement was brought about through a continued restrictive import policy, which held import levels in 1968 marginally below those of 1967, while at the same time export receipts increased by nearly 10 per cent largely as a result of a recovery in the world market price of cocoa. As shown in Table 6–1, the improvement recorded in 1968 failed to sustain itself in 1969. The provisional balance of payments estimate indicates a current account deficit in 1969 of N₵51.2 million, the same level as in 1968. Although export receipts increased in 1969 by nearly 14 per cent, again as a result of higher receipts for cocoa exports, they still fell short of expectation. On the other hand, imports which had declined continuously since 1966, rose by more than 12 per cent.

In part the increase in imports was deliberate, since the previous restrictive import regime had retarded production and caused capacity utilisation of installed plant and equipment to fall to extremely low levels. Although the total value of imports did not exceed planned levels, the end-use composition of imports did not fully match expectations with shortfalls in industrial raw materials and investment goods. The disappointing out-turn of the balance of payments on current account for 1969 stemmed from the combination of shortfalls in expected export earnings and a rise in imports, particularly of consumer goods.

In terms of the overall position, that is current plus long-term capital transactions, the situation worsened from a deficit of N¢4.7 million in 1968 to N¢9.9 million in 1969. Total long-term aid inflows increased from N¢15.8 million in 1967 to N¢42.6 million in 1968 and N¢45.1 million in 1969. For the two years, 1968 and 1969, gross aid inflows, and suppliers' credits, were N¢20 million below the level of N¢117 million projected in the *Two-year Development Plan*. The improvement in the long-term aid inflows in 1968 as compared to 1967 was made possible by the increased volume of such assistance made available to Ghana and by improved levels of utilisation. Nevertheless net aid inflows in 1969 fell below those recorded in 1968 due to the increased outflow of debt servicing payment for long-term official capital. Net long-term aid was N¢42.2 million in 1968 but fell to N¢39.6 million in 1969.

Debt servicing payments for official suppliers' credits were reduced sharply in 1969 as a result of the October 1968 debt rescheduling. The gross inflow of official suppliers' credits, which was N¢0.2 million in 1968 rose to N¢9.0 million in 1969. This development does not reflect a change in the Government's announced policy of reducing reliance on this form of financing but rather the completion of certain purchases under agreements signed before 1966. Private long-term capital receipts, other than direct investment, also increased over the two years and were approximately at the level projected in the *Two-year Plan*. This improvement was due to the increased utilisation of private suppliers' credits for the purchase of machinery and is indicative of the extent to which activity in the private sector is increasing. Another source of resources on the capital account was from bilateral transaction. In 1967 and 1968 there was a net outflow on the bilateral account while in 1969 there was a net inflow of nearly N¢13 million arising from imports from the trade pact countries increasing more rapidly than exports.

From 1966 to 1968 the nation was a net user of IMF credits. These drawings were made under successive stand-by agreements arranged since May 1966. In 1969, however, net repurchases resulted in an improvement of N¢8.6 million in the net IMF position.

Table 6–1

SUMMARY BALANCE OF PAYMENTS

(N₵'million)

	1967		1968		1969(a)	
	Cr.	*Dr.*	*Cr.*	*Dr.*	*Cr.*	*Dr.*
Current Account						
A. Goods and services						
1. Merchandise (f.o.b.)	289.8	270.7	318.6	266.9	362.9	299.5
2. Services	31.1	120.6	29.9	119.3	32.9	133.7
3. Total goods and services	320.9	391.3	348.2	386.5	395.7	433.2
4. Net goods and services	—	70.4	—	37.7	—	37.5
B. Transfer payments						
1. Private transfer	1.7	17.5	1.5	17.7	1.5	15.6
2. Official transfers	3.1	3.2	4.7	2.0	3.7	3.3
3. Total transfers	4.8	20.7	6.2	19.7	5.2	18.9
4. Net transfers	—	15.9	—	13.5	—	13.7
5. Net total current account	—	86.3	—	51.2	—	51.2
Capital Accounts						
1. Direct investment	34.1	—	17.2	—	14.6	—
2. Other private long-term	3.0	0.9	6.6	0.9	9.4	1.2
3. Trade credits (net)	—	3.5	—	2.9	—	18.7
4. Central Government	27.0	29.4	43.9	23.7	66.5	14.0
5. Total non-monetary sector	64.1	33.8	67.7	27.5	90.5	33.9
6. Net total non-monetary sector	30.3	—	40.2	—	56.6	—
Monetary sector						
1. Total monetary	55.2	2.4	11.2	6.00	16.6	21.7
2. Net total monetary sector	52.8	—	5.2	—	—	5.1
Errors and omissions	3.2	—	5.9		—	0.3

(a) Provisional estimate.
Source: Bank of Ghana

The virtual lack of improvement in the balance of payments position in 1969, in spite of the continued high cocoa price, clearly under-scores the structural nature of the economy's balance of payments problem, and the Government's main task in the years ahead will be to formulate and effectively implement specific policies aimed at bringing about fundamental changes in the structure of external trade.

Exports and imports, 1967–69

Although export receipts increased in 1968 and 1969, the improvement was considerably less than that projected in the *Two-year Development Plan*, as shown in the table below:

TABLE 6–2

PROJECTED AND ACTUAL EXPORTS [a]

(N¢ million)

Commodity	1967		1968		1969	
	Plan	*Actual*	*Plan Projection*	*Actual*	*Plan Projection*	*Provisional Actual*
1. Cocoa	188	193	240	214	262	246
2. Timber	27	25	31	29	36	32
3. Gold	25	30	30	29	33	28
4. Bauxite	2	2	2	2	3	2
5. Manganese	11	11	10	11	8	8
6. Diamonds	15	12	22	17	25	14
7. Others	16	10	17	6	20	11
8. Re-exports	7	7	7	5	7	7
Total[b]	291	290	359	313	394	348
Total (excluding cocoa and re-exports)	96	90	112	94	125	95
Change in exports (excluding cocoa and re-exports)			16	4	13	1

Notes.—(a) Excluding Valco. Plan projections and actual are at 1968 prices except for cocoa.
Source: Central Bureau of Statistics.

The major shortfall was in cocoa exports. The volume of cocoa beans exported fell from 319,211 in 1968 to 304,358 tons in 1969[1], but total receipt rose due to higher world prices. Nevertheless the average bean price obtained by the Cocoa Marketing Board was considerably lower than the prevailing world market prices in 1968 and 1969. In part this result reflected deliveries of cocoa to Russia to complete a 1965 agreement but a major factor in this performance was the policy of the Cocoa Marketing Board to sell forward in the face of rising world prices.

[1] As tabulated by the Bank of Ghana. Because of differences in the timing of cocoa exports these figures will differ from those tabulated by the Central Bureau of Statistics.

in 1969 the country received an average bean price of N¢723 per ton while the prevailing price during the year was N¢959 per ton, f.o.b. Accra. On the admittedly unrealistic assumption that the nation could have sold its entire crop on the spot market without changing the spot price, cocoa receipts would have been N¢70 million higher if the Cocoa Marketing Board had obtained between 100 to 95 per cent of the world market price. While the foreign exchange loss so calculated is undoubtedly too high it is clear that improvements in the sales performance of the Cocoa Marketing Board are of prime importance to the economy if it is to maximise its returns from cocoa exports and improve her balance of payments position.

As regards other commodity exports, these have either declined, in real terms, since 1967 or shown only marginal increases. This performance, despite the incentive given to exporters through the 1967 devaluation, reflects in part the depletion of Ghana's known natural resources. It is therefore urgent that non-traditional exports be developed. The *Two-year Plan* projected increases in non-cocoa exports which, in retrospect, appear to have been unduly optimistic. The balance of payments projection for 1970–71, discussed below, is based on a careful evaluation of the export potential for the various natural resources based commodities and envisages only modest increases.

Imports on a c.i.f. basis in 1968 and 1969 were N¢297 million and N¢340 million respectively, excluding Valco imports of alumina. These levels were close to the import requirements as projected in the *Two-year Development Plan* of N¢315 million and N¢345 million. The object of the increase in imports was to allow the economy to raise the rate of growth of G.D.P. to 5 per cent per annum. While this target was not achieved, growth in 1968 and 1969 did show, on the basis of provisional estimates, an increase over that recorded for 1967. This result indicates again the close relationship between the availability of imports and the growth rate which the economy can achieve, particularly in the non-agricultural sectors.

During 1969 and the first half of 1970 policy measures were introduced to further liberalise imports and reduce the reliance on 180-day credits. The scope of the O.G.L. system was extended to cover essential food items, spare parts, chemicals, including pharmaceuticals, and a number of other items. A five per cent surcharge was imposed on O.G.L. imports except essential foods and pharmaceuticals. In addition, payments for a number of commodities, mainly essential food items, were removed from the mandatory 180-day credit requirements. This was the first major step away from the use of 180-day credits, a means of financing imports that is estimated to increase the cost of commodity imports by at least 15 per cent. The increased liberalisation of imports, especially of raw materials and spare parts, and the consequent reduction in directly licensed imports will lead to a more rational allocation of scarce foreign exchange.

An analysis of imports by end-use categories for 1968/69 and 1969/70 is shown in Table 6–3. Total imports in 1969/70 are estimated to be nearly 23 per cent above the 1968/69 level. This reflects both the larger allocation for licensed imports, especially in the first half of 1970, and the impact of increasing the coverage of the O.G.L. system. The rather rapid increase in imports underscores the fact that the former surcharge of 5 per cent was too low to effectively restrain demand. Major increases were recorded in non-durable and durable producers' materials. This may reflect some stockpiling by importers but is likely to result in higher production and capacity utilisation levels thereafter. Data available for 1968 on capacity utilization and stocks of industrial raw materials showed that capacity utilization in many industries was still comparatively low and that most industries had low stock levels of raw materials on hand. The inefficient use of existing plant and equipment raised unit costs and the lack of stocks led to irregularities in the flow of production. Although detailed data for 1969/70 are not yet available it would appear that the more liberal import regime, especially for raw materials and spare parts, has permitted capacity utilization to increase and inventories to reach a level sufficient to permit uninterrupted operation. The increased imports of agricultural inputs and of producers' equipment are in line with the Government's policies to step up the growth rate in the agriculture sector and to increase total investment levels. A comparison between the import programme and the breakdown of actual imports by end-use reveals, however, that there is still an apparent need to improve the administration of import licences and foreign exchange management in general, to ensure that actual imports reflect the development needs of the economy.

On the whole the 1969/70 import levels resulted from import policies directed towards a more satisfactory supply of raw materials, spare parts and essential food items, at the same time encouraging further import substitution and higher levels of capacity utilization. Nevertheless, demand for imports continues to be high, relative to domestic output and export earnings, thus indicating a continuing need for large-scale receipts of external aid.

Higher world cocoa prices, especially in 1969, contributed to a marked improvement in the economy's terms of trade. In 1967, Ghana obtained an average price for cocoa beans of N₵395.97 per ton, in 1968 the bean price received rose to N₵562.42 per ton and reached N₵722.63 per ton in 1969. Some improvement was also recorded in the world timber price. At the same time however import prices also continued to rise. For the period 1967 to 1969 import prices rose by 24 per cent. Nevertheless the higher export prices, especially for cocoa, led to a considerable improvement in the terms of trade.

TABLE 6–3

IMPORTS BY END-USE(a)

(N¢ millions)

End-use Category	1968/69	1969/70(b)	*Percentage Change*
I. NON-DURABLE CONSUMERS' GOODS	79.3	98.9	24.7
1. Food, drink, tobacco ..	33.5	45.4	35.3
2. Textiles and clothing ..	24.1	25.8	7.3
3. Others	21.7	27.7	27.7
II. DURABLE CONSUMERS' GOODS ..	15.3	16.9	10.9
1. Private vehicles	7.3	8.5	17.2
2. Others	8.0	8.4	5.3
III. FUELS AND LUBRICANTS	21.9	23.2	5.9
IV. NON-DURABLE PRODUCERS' MATERIALS	97.2	126.5	30.2
1. Food, drink tobacco manufacturing	27.1	25.9	4.4
2. Agriculture	6.3	7.6	22.0
3. Mining, other manufacturing commerce	63.8	93.0	45.7
V. DURABLE PRODUCERS' MATERIALS	31.6	36.7	16.5
VI. PRODUCERS' EQUIPMENT	80.0	97.2	21.5
TOTAL	325.1	399.4	22.9

Notes.– (a) Includes Valco imports and freight and insurance.
(b) Based on provisional actuals for 1969/70. Excludes purchase of two ships valued at N¢7.4 million.

Source: Central Bureau of Statistics.

Balance of payments projections 1970/71

The balance of payments projections commensurate with the "low" and "moderate" growth alternatives set for 1970/71 is shown in Table 6–4. The "low" projection relates to an overall increase in G.D.P. of 3.5 per cent while the "moderate" projection assumes a 5 per cent growth rate for G.D.P. Export receipts are projected to decline in 1970/71 as a result of an expected decline in the world market price for cocoa. Cocoa export earnings are projected at N¢275 to N¢285 million, the range reflecting uncertainties as to the size of the 1970/71 main crop. It has been assumed however that the sales policy of the Cocoa Marketing Board will be such as to obtain for Ghana a much higher percentage of the prevailing world market price than in the past. Other exports are projected at an unchanged level in the "low" estimate while in the "moderate" projection a marginal increase is assumed in such exports on the assumption that the sectoral growth targets, especially for the timber and mining sectors, will be achieved. On the whole, however, exports of timber and mining products face the problem of a rapid depletion of known reserves and thus offer little potential for major increases in exports. Non-traditional exports have been projected to grow at 10 per cent but their contribution to total exports remains small.

TABLE 6–4

FOREIGN EXCHANGE RESOURCES AND USES 1970/71

(N£ millions)

	Low	*Moderate*
A. Foreign Exchange Resources		
1. Exports (f.o.b.)	388	403
(*a*) Cocoa	(275)	(285)
(*b*) Others	(113)	(118)
2. Services	35	35
3. Transfers	5	5
4. Capital	81	81
(*a*) Private	(31)	(31)
(*b*) Long-term aid: committed	(50)	(50)
5. Bilateral credits	17	17
Total: Foreign Exchange Resources	526	541
B. Foreign exchange uses (excluding imports. c.i.f. and discretionary monetary movements)		
1. Services	80	80
2. Transfers	19	19
3. Debt servicing: principal plus interest	52	52
(*a*) Official suppliers' credits	(11)	(11)
(*b*) Others	(41)	(41)
4. Trade arrears	15	15
5. I.M.F. (net of S.D.R.)	14	14
Total: Foreign exchange uses	180	180
C. Resources available for imports (*c.i.f.*)	346	361
D. Required imports (c.i.f.) (excluding Valco)	388	407
E. New aid required for import programme	42	46
F. Discretionary monetary movements to be financed by new aid		
1. Reduction in trade credits	20	20
2. Reduction in commercial arrears	5	5
3. Increase in reserves/reduction in banking loans	10	10
Total.—Discretionary monetary movements	35	35
Total new aid required	77	81

The production, consumption and investment targets set under the moderate growth alternatives for 1970/71 will call for further increases in imports. While the extension of the O.G.L. list may lead to an initial spurt in import demand, the graduated scale of surcharges should be sufficient to restrain imports of O.G.L. items over the year as a whole to levels commensurate with the production and investment targets. In terms of the composition of imports, it is expected that consumer goods, non-durable and durable, will decline as a proportion of total imports while the relative share of capital goods will increase. Table 6–5 shows a projection of imports by end-use.

Thus disbursements of N¢77 to N¢81 million of new aid are called for in order to finance both the import programme associated with the growth targets and to permit the economy to improve its overall foreign exchange management. New aid required for the import programme is estimated at N¢42 to N¢46 million. These estimates assume however that the credits available to the nation from the trade pact areas, of N¢17 million, can effectively be utilised this year. Any shortfall in the use of such credits implies, *pari passu*, an increase in the new aid requirements. Provision has been made in the estimates for a modest increase in reserves and for a reduction in commercial arrears and trade credits. The reduction in the use of 180-day credits is a prime objective of the Government since the cost of such credits to the economy is high. The provision for a reduction in commercial arrears, including outstanding remittances of profits and dividends, as well as trade bills, is a necessary prerequisite to increase the attractiveness of the economy to private investors. At the end of 1969/70 the economy's reserves were equal to 2 months' imports but this level does not take account of seasonal fluctuations in the reserve level. The lack of adequate reserves forces the economy to use high-interest short-terms loans, such as 180-day credits, to meet seasonal differences between export receipts and payments for imports. It is highly desirable that the net reserve position be improved and that outstanding banking loans be reduced to afford the authorities improved possibilities for efficient foreign exchange management.

TABLE 6-5

PROJECTION OF IMPORTS BY END-USE (a)

(N¢ million)

End-use category	1969/70 (b) (*Provisional*)	1970/71 *Low*	1970/71 *Moderate*
I. *Non-durable consumers' goods*	98.9	103	107
1. Food, drink, tobacco	45.4	46	48
2. Textiles and clothing	25.8	28	29
3. Others	27.7	29	30
II. *Durable consumers' goods*	16.9	17	18
1. Private vehicles	8.5	8	8
2. Others	8.4	9	10
III. *Fuel and Lubricants*	23.2	24	25
IV. *Non-durable producers' materials*	126.5	134	141
1. Food, drink, tobacco manufacturing	25.9	29	32
2. Agriculture	7.6	9	10
3. Mining, other manufacturing, commerce	93.0	96	99
V. *Durable producers' materials*	36.7	39	43
VI. *Producers' equipment*	97.2	100	102
TOTAL	399.4	417	436

Notes.—(a) Includes Valco imports and freight and insurance.
(b) *See* Note on Table 6-3

The estimated foreign exchange gap for 1970/71 illustrates again the economy's reliance on imports if it is to implement its investment targets and achieve a reasonable growth rate. The 1970/71 import programme aims at a continued decrease in the share of consumer goods imports in total imports and a shift of foreign exchange resources to development imports. It is essential that investment levels and development imports be stepped up if the economy is to achieve the structural transformation required to reduce its long-term reliance on external assistance. The foreign assistance sought is to permit the economy to increase its rate of growth and undertake investments that offer scope for increasing exports and the economy's capacity to expand in the face of a foreign exchange constraint.

Commercial Policies, 1970/71

The major medium-term objectives of the Government with respect to the external trade sector are:

(i) to further reduce the debt burden to a level which will permit the economy to achieve structural change before repayment of past obligations in regard to medium-term credits;

(ii) to stimulate exports, especially of non-traditional commodities, so as to increase the availability of foreign exchange and diversify the commodity structure of exports;

(iii) to encourage import substitution in those areas where the economy has a comparative advantage;

(iv) to increase the efficiency of foreign exchange use by eliminating reliance on 180-day credits;

(v) to reduce the reliance on the direct control of imports; and

(vi) within the limitations imposed by the aid donors, purchase commodities in those countries which offer the lowest competitive price for imports.

Import Policies.—The Government has announced measures to further extend the O.G.L. scheme, to raise the surcharge, and revise certain tariffs to increase the revenue elasticity of the tariff system and eliminate certain inequities. It is estimated that the revised O.G.L. list now covers over half of all imports, including most capital goods and raw materials. In addition to some of the consumer goods previously covered by O.G.L. the recent import policy extends this system to textiles, clothing and footwear. To control demand and to capture monopoly profits previously earned by licence recipients a graduated surcharge has been introduced. The surcharge ranges from zero, on pharmaceuticals, tinned fish, corned beef and baby food, to 125 per cent on clothing. A special development levy of 1Np/lb. has been placed on rice and sugar imports, thus increasing the incentives for import substitution to take place. Cement imports, previously banned, will now be permitted but with a 40 per cent *ad valorem* development levy. The duty rate on second-hand cars has been rationalised so that such cars will be taxed in accordance with their age as from first registration and based on a series of percentage rebates from fixed initial prices. Specific duty rates on textiles have been converted to *ad valorem* rates thus preventing a further erosion of the tariff through external price increases and reducing the social inequities of the tariff on textiles. Finally, manufacturers' imports of raw materials will now, with few exceptions, attract the ordinary rate of duty in place of the concessionary rates which have been in operation since 1966.

The Government's import policy thus aims at a considerable degree of import liberalisation. The duty changes and the new surcharge levies should not only effectively restrain imports within the bounds set by available foreign exchange but will also provide a more realistic indicator to the users of such resources as to its scarcity. The ambitious attempt to proceed with the process of import liberalisation in the face of an expected decline in earnings from cocoa exports is an indication of the Government's desire to rationalise the economy's production and consumption structures. Should the present levels of the surcharge prove insufficient to restrain import demand the Government reserves the right to raise the surcharges presently in force.

Over the past year, the country's bilateral balances changed from a debit position to a surplus one. To utilise these credits without introducing a measure of compulsion into the recently liberalised import trade

will call for selective measures which will bring the relative prices among various trading areas into line with each other. After further study of the price differences between comparable goods available in the trade pact and convertible currency areas, adjustments in the O.G.L. surcharge levels may be made so as to encourage importers to avail themselves of bilateral credits.

Export Promotion.—One major thrust of Government policy during the plan year will be in the area of export promotion. There is sufficient evidence to support the view that the potential exists but what is lacking has been the administrative machinery as well as the appropriate incentives to encourage exporters to venture into the markets of our neighbouring countries through legitimate channels. This problem was recognised last year when the following concrete measures were proposed in the budget speech:

> "It has been decided to offer Ghanaian enterprises further opportunities and incentives for going after export markets. Firstly, any firm in the manufacturing sector, with the exception of wood-working and metal-processing industries, which export 25 per cent of their total production will be entitled to a rebate of 50 per cent of their total liability of company tax. Firms which achieve export ratios between 15 and 25 per cent will be entitled to a rebate of 33⅓ per cent and firms which export between 5 and 15 per cent of total production will be entitled to a rebate of 10 per cent."

The necessary legal provision has been made to permit exporters to take advantage of these concessions. In addition to this proposal which represents a substantial inducement to manufacturers, there are provisions for drawbacks of customs duty and sales tax on the value of inputs of manufactured articles exported. Thirdly, an Export Promotion Company which has been promoted and funded with public resources has been charged with the active promotion of the export of locally produced goods, especially to neighbouring countries.

None of these measures appear to have had any noticeable effects yet. This may well be due to the usual delays in setting up the organisation and the administrative machinery at the manufacturers' level to take full advantage of the measures. Therefore it has been decided to simplify the administrative difficulties of doing export business. All export transactions will be centralised at the commercial banks and no prior export licences will be required. The Government will also assist exporters by increasing the flow of market information through its external missions as one means of allowing potential exporters to increase their foreign sales. In addition, the Export Promotion Company will be rejuvenated and encouraged to show more dynamism in the identification of the tastes and the commodity requirements of our neighbouring countries and the matching of this demand with local export potential.

To assist the timber export industry the Government last year offered to pay one-third of all transport costs, within Ghana, for the movement of secondary species of timber. This subsidy will be raised to 100 per cent in 1970/71 until the administrative machinery to implement

the earlier scheme can be put into effect. In addition an export bonus scheme which will grant financial inducements to exporters will be implemented after discussions regarding the Government's obligations under the exchange rate regulations of the I.M.F. are successfully concluded. As regards regional trade, negotiations are under way to establish trade agreements with all neighbouring countries. These trade agreements should establish new export opportunities for the manufacturing sector. These measures should provide a measure of stimulus to non-cocoa exports.

Foreign Exchange Management—The recently concluded debt negotiations have resulted in a short-term relief of NC11 million in 1970/71. However, only if the economy can obtain substantial long-term debt relief and additional aid, both granted on 'soft' terms, will it be possible to achieve a significant measure of structural change and create a viable economic structure that will permit a reduction in net aid inflows and the repayment of past obligations. It is clear that an increasing volume of external assistance will be required over the medium term. However, the use of tied aid which implies the purchase of commodities in markets which do not necessarily offer the lowest price, reduces the value of such assistance. While policies with regard to aid tying are not expected to change over the coming year, a judicious selection of commodities to be purchased under commodity loans and of donor sources can help increase the real value of such assistance. The Government will make efforts to improve both the management and speed of utilisation of commodity aid in order to maximise its benefits to the economy.

A shortage of adequately prepared projects is a major bottleneck in the nation's efforts to increase aid inflows. At present there is a lack of technically competent personnel to prepare sufficient feasibility studies to meet the demands of aid donors as well as improve the availability of financing for projects. In the short run this implies that the foreign exchange gap should be largely filled by programme assistance. A series of sector studies have been completed and these indicate specific areas for future development. The potential investment projects noted in the sector studies must now be formulated in terms of feasibility studies. The Government therefore intends asking for specific grant financing for economic and engineering consultants to work with various agencies to prepare projects suitable for external financing.

The Government continues to welcome foreign private capital and recognizes that such investors must have a reasonable expectation of repatriating their profits. Efforts have been made since 1966 to remove restrictions on transfers of profits and dividends. The Government will continue to pursue this policy within the limits set by resource availabilities. Provision has therefore been made in the balance of payments for a further reduction in commercial arrears, including arrears of profits and dividends.

The balance of payments difficulties of the economy cannot be resolved in one year but the policies introduced this year will make a beginning in the process of restructuring trade and production. These

policies will have both an immediate impact, by reducing the distortions which presently characterise the allocation of foreign exchange and a longer run effect through stimulating the growth of exports and the development of import substitution industries.

TABLE A-1

BALANCE OF PAYMENTS, 1969/70 and 1970/71

(N¢ millions)

	1969/70 (*Provisional Estimates*)	1970/71 *Low*	1970/71 *Moderate*
TOTAL PAYMENTS	549.5	586	605
I. *Import: c.i.f.*	380.0	388	407
II. *Services* (excluding freight and insurance)	76.7	80	80
1. Other transportation	23.3	24	24
2. Travel	7.8	8	8
3. Profits and dividends	18.1	19	19
4. Government (n.i.e.)	10.9	11	11
5. Others	16.6	18	18
III. *Transfers*	19.1	19	19
1. Private	15.9	16	16
2. Official	3.2	3	3
IV. *Debt Servicing: interest*	30.7	27	27
1. Long-term loans: official	6.6	9	9
2. Suppliers' credits: official	8.4	5	5
3. Suppliers' credits: private	1.4	2	2
4. Others	14.3	11	11
V. *Debt Servicing: principal*	26.4	25	25
1. Long-term loans: official	4.8	5	5
2. Suppliers' credits: official	13.2	6	6
3. Suppliers' credits: private	5.5	7	7
4. Others	2.9	7	7
VI. *Net Monetary Movements*	16.6	47	47
1. Trade credits	-27.2	20	20
2. Bilateral accounts	32.3	-17	-17
3. Commercial arrears	-8.3	20	20
4. Reserve accumulation	10.8	10	10
5. I.M.F. (net of S.D.R.)	17.5	14	14
6. Errors and omissions	-8.5	—	—
TOTAL RECEIPTS	549.5	586	605
I. *Exports* (*f.o.b.*)	423.8	388	403
1. Cocoa	310.4	275	285
2. Others	113.4	113	118

TABLE A–1—contd.

	1969/70 (*Provisional Estimates*)	1970/71 *Low*	1970/71 *Moderate*
II. *Services*	33.4	35	35
1. Freight and insurance	16.1	17	17
2. Other transportation	8.7	9	9
3. Travel	1.0	1	1
4. Investment income	2.9	3	3
5. Government (n.i.e.)	3.9	4	4
6. Others	0.8	1	1
III. *Transfers*	5.2	5	5
1. Private	1.5	1	1
2. Official	3.7	4	4
IV. *Capital*	87.1	158	162
1. Private	23.2	31	31
2. Official	63.9	127	131
(*a*) Suppliers' credits	(5.6)	—	—
(*b*) Long-term aid: committed	(58.3)	(50)	(50)
(*c*) Long-term aid: new ..	—	(77)	(81)

7. COCOA

Background

Since 1950, Ghana has experienced three levels of cocoa production. During the period 1950/51 to 1959/60 output varied from a low of 207,000 tons to a high of 317,000, giving a ten-year average of 243,000 tons. In 1960/61 production increased sharply to 433,000 tons. This foreshadowed a higher level of output which prevailed in the five-year period 1960/61 to 1964/65 during which time production ranged between 410,000 and 557,000 tons and averaged 452,000 tons. Following this increase in the first half of the sixties, production in Ghana declined in the next five years to an average of 384,000 tons per annum within a range of 325,000 to 417,000 tons. Thus in the last five years of the 1960's production declined by 15 per cent from the previous five years as against an increase of 86 per cent in the first half of the decade over the fifties.

TABLE 7–1

AVERAGE ANNUAL COCOA PRODUCTION BY REGION
1950/59, 1960/61 TO 1965/69

Period	*World*	*Africa*	*Ghana*	*Africa ex-Ghana*	*World ex-Africa*
	(thousands of long tons)				
1950/51 to 1959/60	828	517	243	274	311
1960/61 to 1964/65	1,232	916	452	464	316
1965/66 to 1969/70	1,288	913	384	528	376
	(per cent of world production)				
1950/51 to 1959/60	100	62	29	33	38
1960/61 to 1964/65	100	74	37	37	26
1965/66 to 1969/70	100	71	30	41	29

While production in Ghana experienced these fluctuations output in other African countries continued to rise. Production in other African countries rose for instance by 69 per cent from an average of 274,000 tons in the fifties to 464,000 in the first half of the 1960's. In the last five years of the past decade other African producers increased their output by a further 14 per cent in the face of declining production in Ghana. Non-African sources of supply remained relatively stable between the fifties and the first half of the 1960's, the average output rising only 2 per cent in the period. In the second half of the last decade, however, non-African producers increased their output by 19 per cent.

Thus in the period 1965/66 to 1969/70 Ghana lost the spectacular momentum in output which was achieved in the period 1960/61 to 1964/65 while other African producers maintained their pace. At the same time other world producers who had been slow to start also began

in the second half of the sixties to expand their output. As a result of these developments, Ghana's share of the world production, which rose from 29 per cent in the fifties to 37 per cent in 1960–64, declined again to 30 per cent in 1965–69.

Cocoa Prices and Policies

The shifts in production in Ghana have followed changes in the producer price, the availability of insecticide and the level of Government support offered to the industry.

Cocoa prices during the 10-year period after World War II followed a steep upward path. The Ghana producer price in real terms increased several fold from 1943 to 1952, when it stood at £149 per ton. Throughout the years 1953 to 1958 the producer price was relatively stable, fluctuating within the range of £130–£149 per ton. The buoyant producer price situation during the late 1940's and early 1950's therefore provided a strong inducement to farmers to plant cocoa. The result of this favourable situation appeared in the 1960's when the new plantings came into bearing. Together with new plantings, chemical spray to control capsid damage became an important influence on cocoa production during the early 1960's. The spraying programme, which began in 1959 with the application of 150 thousand gallons of gammalin, was maintained at the level of 200–300 gallons for the next five years.

During the period 1959–65 the producer price fell steadily, particularly in terms of its purchasing power. The index of the real producer price declined from 100 in 1958 to 32 in 1965. The low world price of cocoa during the 1960's, culminating in the disastrously low price in 1965 of £92 per ton, created an unwarranted degree of pessimism with respect to the future of cocoa as an industry in Ghana. The result of this attitude was the adoption of policies which had exceedingly negative effects on the industry. Instead of attempting to protect the industry for the longer run against the prevailing unfavourable short-run situation in the world market, the producer price was allowed to decline to N₵4.00 per load. Moreover, the supply of spray materials was sharply reduced to as little as 27,000 gallons in 1965, the extension services were cut off and systematic measures for the control of swollen shoot disease were stopped.

The cocoa industry therefore suffered from reduced public support and availability of inputs. Moreover, due to the low producer price, farmers could not afford the inputs needed to maintain a satisfactory level of husbandry or to fully harvest the crop. This caused some permanent damage to cocoa plantings and the resulting loss in output as these inputs were withdrawn is indicated by the decline in the level of cocoa production in the second half of the sixties.

In summary, the two main factors which contributed to the rapid increase in production from the late fifties to the mid-sixties and to the decline in the late sixties were changes in the producer price and in the level of application of capsid spray.

The Two-year Plan Period

The objective for cocoa in the *Two-year Development Plan*, 1968/69–1969/70 was to embark on programmes which would rehabilitate cocoa plantings to provide the basis for the rate of expansion that would maximize future revenue from cocoa, and at the same time to encourage the production of cocoa in the short run so as to maintain Ghana's share of cocoa sales in the world market. The implementation of the Plan entailed inve ting in planting, directing more resources to disease and insect control, enlarging the extension services and increasing the producer price.

The producer price was raised in 1969 from N¢6.50 to its present level of N¢8.00 per load. This increase appears to have induced farmers to put some more resources into maintaining the cocoa farms and harvesting the crop.

The amount of capsid spray sold during the period increased to 178,000 gallons in 1968/69 and to 291,000 gallons in 1969/70. Moreover, the distribution network was enlarged by allowing the Licensed Buying Agents of the Cocoa Marketing Board, in addition to the Cocoa Division of the Ministry of Agriculture, to sell insecticide to farmers.

Further support to the cocoa industry was given through the inauguration in 1969/70 of a cocoa survey and plans for rehabilitation. The survey is scheduled as a two-year programme to compile an inventory of acreage, age and condition of the cocoa plantings and at the same time to identify and remove the trees showing visible symptoms of swollen shoot disease. The rehabilitation programme consists of assisting farmers to replant where trees have been cut out because of swollen shoot. The assistance includes supplying the seedlings to farmers as well as helping them with lining and pegging at the planting stage. The survey and the rehabilitation programmes were supported by increasing the capital budget for the Cocoa Division from N¢1.2 million in 1968/69 to N¢4.7 million in 1969/70. The expansion of the nurseries under these programmes enabled the Division to increase the distribution of planting material from the equivalent of 1.7 million seedlings in 1968/69 to 9.6 million in 1969/70.

The Cocoa Research Institute (C.R.I.) is located at Tafo and Bunso where a programme of scientific research in cocoa production is carried out. The main areas of research covered in the programme include virus investigations with emphasis on swollen shoot disease, entomological research along with field trials of insecticides, plant breeding and selection including the introduction of hybrids and testing new genetic material, and nutrition, shade and soil fertility experiments. In keeping with the policy outlined in the *Two-year Plan* to improve production practices and to expand the output of cocoa in Ghana, the capital budget of C.R.I. has been increased from N¢233,000 in 1968/69 to N¢552,000 in 1969/70 to N¢566,000 in 1970/71.

The marketing services for the industry are supplied by the State Cocoa Marketing Board (C.M.B.) which is responsible for purchasing, financing, grading and shipping cocoa beans. The Board authorises local

buying agents, one of which is the Board's own Purchasing Department, to make the actual purchases of cocoa beans from farmers. The agents are financed by advances from the Board which also arranges for the storage, grading and transportation of the beans to the ports. The Board allocates about N₵900,000 per year for repairing and improving feeder roads to enable the cocoa crops to be moved from the farms to collection points on the main roads. To support the grading services for cocoa the Board makes a grant to the Produce Inspection Service of the Ministry of Agriculture of N₵800,000 per annum. The Board operates two cocoa processin plants one of which it owns wholly and in the other holds a 51 per cent interest. These factories processed 39,600 tons of cocoa beans in 1968/69 and 50,700 tons in 1969/70.

As a contribution to cocoa production the Board, in co-operation with the Cocoa Division, distributed 79,000 gallons of capsid spray material in 1969 through the buying stations of its Purchasing Department. This policy will continue in 1970/71 with the objective of increasing sales to 200,000 gallons. The Board has a scholarship fund from which it provides N₵200,000 per annum as scholarships for the children of cocoa farmers. It also makes a grant of N₵200,000 to the Cocoa Research Institute in general support of the research programme.

Cocoa sales are the responsibility of the Cocoa Marketing Company (C.M.C.) which is a subsidiary of the Board. A major consideration in selling is that cocoa prices are characterized by large fluctuations. These are associated with shifts in supply caused by natural hazards in production, by changes in production policies in the producing countries, including Ghana, and by buyers' response to the supply situation. Thus, managing cocoa sales so as to maximize revenues depends upon having advance intelligence about the rather complex demand-supply relationships. The Company has been at a disadvantage in making selling decisions because it has had to operate without adequate information on the variables which affect the future course of cocoa prices. This includes crop forecasts which have not been sufficiently accurate to be helpful to the Board in its selling decisions, even in the short run. These circumstances have resulted in making forward sales which were inconsistent with subsequent price trends, resulting in a considerable loss to Ghana of foreign exchange earnings. The Board is now building up a statistics-economics unit to do research in cocoa demand, supply and pricing.

The Government levies an export tax on cocoa revenue which is collected from the Board. The current tax schedule contains certain anomalies. The whole system will be reviewed with a view to removing these anomalies. A local tax is levied on the sales value of cocoa beans sold to local processing factories. The amount is calculated from a schedule similar to the one used in calculating the tax on cocoa exports.

Policies for 1970/71

Management of Cocoa Sales—The Government will immediately undertake a thorough review of the several factors contributing to the management of cocoa sales. An examination of sales strategies and the

means of expanding the statistical-economic services to support the selling programme will be carried out with a view to establishing and adequately staffing a statistical and economic research unit to provide the necessary professional marketing supporting services required for maximizing foreign exchange earnings from cocoa sales.

World Cocoa Agreement—The Government supports the principle of a World Cocoa Agreement and will continue to take an active part in the negotiations to bring one into existence. In particular, the Government will be alert to obtaining an adequate share for Ghana in whatever quotas are set under the Agreement. Any such Agreement must of necessity include appropriate production measures. The final form of the Agreement will determine the rate of expansion in cocoa production which Ghana will set as its objective for the future. In the meantime our production target has been set at not less than 4 per cent per annum, a rate which is consistent with estimates of the growth in the world demand for cocoa.

Rehabilitation.—The policy of the Cocoa Division is to service and rehabilitate the industry through intensified and sustained efforts to control cocoa diseases and pests, and by actively assisting farmers to increase both yield per acre and efficiency of production through the use of high-yielding varieties and higher standards of cocoa husbandry. The programmes will include (*a*) disease control, (*b*) pest control, (*c*) provision of high-yielding varieties in the form of pods and seedlings to farmers from special seed gardens, (*d*) training of farmers in improved husbandry practices in short residential courses and through the field extension services of the Cocoa Division, (*e*) investigating farmers' problems and seeking better methods of disease and pest control, cocoa agronomy, and general husbandry through the Cocoa Agronomy section in co-operation with Cocoa Research Institute of Ghana, (*f*) continuous in-service training of both senior and junior staff within the Division to keep them abreast of developments in cocoa husbandry, (*g*) general rehabilitation of the cocoa farms through replanting and higher standards of cocoa husbandry.

Disease Control.—The main disease of cocoa in Ghana is swollen shoot, a virus disease which has plagued the cocoa industry for many years. The best methods of controlling swollen shoot at present is by systematic spotting and cutting out of the diseased trees and their contacts. This system is effective only if the initial treatment is followed by regular monthly re-inspection and treatment. Through this system the disease was brought under control by 1962 by which time 113 million trees had been removed. However, in that year the Cocoa Division which had been responsible for this task was abolished and farmers themselves assumed the responsibility. When farmers were responsible for cutting out the disease spread at an alarming rate, causing heavy damage to the industry. Between 1962 and 1964 farmers removed only an estimated 160 thousand diseased trees out of a total of 3.6 million infected trees which had been identified by the Cocoa Division. The Government was thus compelled to re-establish the Cocoa Division in August 1964,

although on a much smaller scale than before. Since 1966 there has been a steady build-up of staff and facilities for the control of the disease and between August 1964 and December 1969 the Cocoa Division located and cut out 22 million infected trees.

The country-wide survey of all cocoa growing areas, undertaken in 1969/70 to locate and initially remove all diseased trees and their contacts, will be continued in 1970/71 and completed by June, 1972. All cocoa growing areas will be sectored and pre-blocked before actual disease surveys commence. The planned regional sequence of surveys is Eastern, Ashanti, Brong-Ahafo, Western, Central and Volta. Two thousand additional Field Assistants and four thousand Disease Spotters will be trained to supplement the existing staff in this exercise. The staff will be re-deployed on completion of the survey on regular and frequent re-inspection and re-treatment and on rehabilitation. Other important information on which more realistic future planning projections can be based will be obtained during the survey. These include the total acreage of cocoa in Ghana, the distribution of cocoa farms, farm sizes, and the age classes of existing cocoa. The budget allocation in 1970/71 is N¢2.0 million.

In an attempt to find a more lasting solution to the swollen shoot menace the Cocoa Division will actively co-operate with the Cocoa Research Institute of Ghana in the development of high yielding varieties which are resistant or tolerant to the disease.

Pest Control.—One of the important factors which contributed to increasing cocoa production in Ghana up to 1964 was the widespread use of capsicides by cocoa farmers. A minimum of 300,000 gallons per annum is regarded essential in Ghana and 600,000 gallons could be applied with worthwhile increases in yield. It requires an increase in output of only 2,100 tons of cocoa at N¢750 per ton to pay for the cost of 300,000 gallons at current prices. The use of capsicide is determined by the producer price of cocoa, the availability and price of capsicide, sprayers and spare parts. Since the cost-benefit ratio of the application of the capsicide is very favourable, and the producer price has been increased, the critical factor is to make the capsicides together with spraying machines and spare parts available to farmers at the optimum time. The average quantity applied to cocoa farms between 1960 and 1964 was 237,000 gallons per annum but in 1965 only 86,000 gallons were applied and an all-time low of 27,000 was reached in 1966. Since then there has been a steady increase due to more Government support and quantities of 178,000 and 291,000 gallons were achieved in the calendar years of 1968 and 1969 respectively.

To encourage greater use an amount of N¢518,000 has been provided for in the 1970/71 budget to be applied as follows:—

(*a*) To increase the quantity of capsicide available for purchase by farmers to a minimum of 400,000 gallons per year and to subsidise the sale of capsicides at N¢1.00 per gallon so that farmers pay N¢4.00 per gallon. To make capsicides more readily accessible to farmers, the Cocoa Division will

sell a minimum of 200,000 gallons per year through 137 districts, 26 zonal and 6 regional sales points. In addition, mobile sales will be organised to take the capsicide to the farmers to reduce the amount of travelling they have to undertake to buy. The Cocoa Marketing Board has also undertaken to sell 200,000 gallons through their Licensed Buying Agents and will offer credit facilities to farmers. The Division will also continue to operate the revolving fund with adequate arrangements for "topping up" to take account of the subsidy element.

(*b*) To sell spraying machines at the prevailing subsidy rate of 70 per cent and to provide servicing and training facilities at 137 minor, 26 medium and 6 major repair depots. Repair and training facilities will also be maintained at 21 cocoa stations and 6 mobile repair vans will operate in the 6 cocoa growing Regions to increase the availability of maintenance for facilities spraying machines. The maintenance and repair stations will charge for spares at cost but the labour will be provided free of charge. New machines will be evaluated as they appear on the market to ensure that only suitable ones are sold to farmers.

Replanting and rehabilitation.—As a positive sequel to removing diseased trees and their contacts, the Cocoa Division will replace cut-out trees free of charge to farmers. The policy will be to replant only areas which are really suited to cocoa with the best available hybrid seedlings. The intention is to produce more cocoa from a smaller acreage by increasing the intensity and efficiency of production. A total of N¢1.7 million will be invested in this programme in 1970/71.

In the implementation of this policy, the Cocoa Division will establish nurseries throughout the cocoa growing areas to make seedlings available near places of utilisation so as to reduce transportation costs and losses. In 1969/70, 250 nurseries were established. In 1970/71, 250 more nurseries will be established bringing the total to approximately four nurseries per district, each nursery having a capacity of approximately 80 thousand seedlings. The full utilisation of this capacity will depend on the availability of hybrid pods. Cocoa seedlings, nurse shade material (cocoyam, plantains, glyricidia, etc.), lining and pegging, and maintenance during the first year will be provided free of charge during this exercise and the objective in 1970/71 is to plant 9 thousand acres. The extension services on farm maintenance will also be intensified.

The cocoa rehabilitation project planned for the Eastern Region with the assistance of a loan from the International Development Association will be started in 1970/71. The Project will extend over five years during which time 54,000 acres of cocoa plantings damaged by swollen shoot disease, insect pests and neglect, will be rehabilitated, and 36,000 acres will be replanted with high yielding hybrid varieties. The total cost of the project is estimated to be N¢15.5 million of which N¢8.5 million will come as a loan from the International Development Association loan sources. The remainder will be raised locally.

Farmer training.—Fifteen of the seventeen existing cocoa stations have farmers' hostels which were allowed to deteriorate and fall into disuse. All fifteen were re-equipped during the 1969/70 financial year. Each hostel can accommodate thirty-six farmers for one-week residential courses in cocoa husbandry. Approximately 22,000 farmers can therefore receive training each year.

Staff training.—The senior and junior staff of the Cocoa Division will receive initial and in-service training at Bunso School. Courses will comprise: (*a*) a mandatory refresher course at least once in three years for all senior staff, and senior staff training courses for new officers; (*b*) orientation and refresher courses for Agricultural and Field Assistants and Drawing Office Assistants; (*c*) ten Senior Officers will be sent at two-year intervals to the University of Science and Technology at Kumasi to take a two-year course leading to the Diploma in Horticulture.

Cocoa agronomy.—The Cocoa Agronomy Section operates mainly from 19 Cocoa Stations and 2 sub-stations sited throughout the differing ecological zones in which cocoa is grown in Ghana. Its headquarters, with a Principal Agricultural Officer in charge, is situated at Bunso. The stations are grouped into four, each group with a senior professional Officer in charge, located at Bunso, Oyoko, Jamasi and Bechem.

The functions of the sections are (*a*) to carry out investigations into improved methods of cocoa cultivation, cocoa disease and pest control, and cocoa rehabilitation, (*b*) to conduct trials and experiments designed to provide information from which recommendations can be made to farmers on all aspects of cocoa cultivation in the differing ecological zones, (*c*) to multiply and propagate improved types of cocoa for distribution to farmers, e.g. hybrid seed and seedlings. (*d*) to train farmers in improved cocoa husbandry techniques; (*e*) to develop the cocoa stations from which the agronomy section functions into bases from which extension services to cocoa radiate in the surrounding areas.

Research and interpretation of results will be carried out in close co-ordination with the Cocoa Research Institute (C.R.I.G.), through the resuscitated joint C.R.I.G./Cocoa Division technical committee. The following main aspects will receive emphasis.

(*a*) C.R.I.G. is working on developing varieties resistant to swollen shoot but results are not expected for 10–15 years. The Cocoa Division will provide space on suitable stations for testing promising selections and assist in the maintenance of records. Until resistant/tolerant varieties are identified, the search for better methods of cutting out will be intensified. Coppicing trials to find out the extent of latent infection in cocoa surrounding cut-out areas will be intensified.

(*b*) Improper and prolonged use of the same capsicide has resulted in the appearance of capsid resistance to the cyclodeine group of insecticides in some areas. C.R.I.G. has identified an alternative insecticide which the Cocoa Division is now testing in the field. Capsid resistance test

groups will be established as a permanent feature in all Regions. The Division will test the new insecticide on cocoa stations during 1970–71. Also there is evidence that the cyclical build-up of capsids is not as it was when current recommendations were made several years ago. The Cocoa Division will review the recommendations on the advice of C.R.I.G. during 1970/71.

Existing seed-gardens will be expanded to cater for the increased demand for hybrid seedlings. New seed-gardens will be established on stations where none now exist. The pod-bearing capacity of existing seed-gardens is very low due to variations in relative vigour between the male and female parents and in their flowering patterns. Hand pollination trials in co-operation with C.R.I.G. have been successful and all new plantings will be designed for hand-pollination. In addition, hand-pollination will be undertaken on all existing gardens to supplement natural pollination. The propagation facilities will be rehabilitated and expanded.

A limiting factor to the increased availability of hybrid seed is the lack of seed storage to make pods available in February–March, when seed is required to produce the seedlings which ideally should be three months old at planting time in May–June. It appears that hand-pollination may also have the effect of extending the period of pod production nearer to the desirable time. However, the best answer appears to lie in efficient seed storage. The Cocoa Division will co-operate with C.R.I.G. to investigate this aspect. The Cocoa Division will maintain close co-operation with C.R.I.G. in the selection and testing of better varieties of cocoa for farm use.

There are no firm recommendations for fertiliser application to the various soil types under farm conditions although very good results have been obtained at C.R.I.G. Since fertiliser is an expensive input it is important that specific and economic recommendations should be available. The Cocoa Division will co-operate with C.R.I.G. in trials on farmers' cocoa to fill this need. Research is also needed into the best methods of re-establishing cocoa especially on farms which are partially denuded and shaded. Although current methods are satisfactory, there is room for improvement both in methods and cost. The Cocoa Division will co-operate with C.R.I.G. in planting small scale-trials.

The Cocoa Division will undertake replicated trials on black pod control with the most suitable fungicides in co-operation with C.R.I.G. Although it is uneconomic at present levels of incidence of the disease and yields per acre, the increasing use of hybrid varieties will make it economic to do so in the near future and Cocoa Division should be ready with firm recommendations when this stage is reached.

8. OTHER AGRICULTURE

Performance in the past two years

The output of the agricultural sector (excluding cocoa, which is treated in Chapter 7) probably fell short of the 5.5 per cent growth target for the 1967–69 period covered by the *Two-year Plan* which means that output did not grow as fast as the population. The continued importation of agricultural commodities on a large scale and the sharp upward movement in prices during the *Two-Year Plan* period support the view of a lag in agricultural production. In the same period imports of food, drink and tobacco averaged about N₵36 million annually or 10.5 per cent of total imports; and imports of materials for local food, drink and tobacco processing industries averaged an additional N₵26 million annually, or 7.3 per cent of total imports.

TABLE 8–1

AVERAGE PRICES FOR SELECTED LOCALLY PRODUCED COMMODITIES

(N₵)

Product	*Unit*	1967	1968	1969	*Per cent Increase* 1967–69
Maize	220 lb. bag ..	6.18	10.02	14.47	103
Millet	204 lb. bag ..	11.35	11.19	15.99	41
Rice, milled ..	100 lb. bag ..	8.73	8.60	9.58	10
Cassava.. ..	220 lb. bag ..	2.95	2.98	3.97	35
Tomatoes ..	122 lb. crate ..	4.92	7.63	6.37	28

As indicated in Table 8–1 prices rose by substantial amounts, varying from 10 per cent for rice to 103 per cent for maize (the very large increase in maize prices was exaggerated by two poor crops following record crops in 1966 and 1967). Only in the case of rice could the increase in prices be described as moderate. The increases in food prices indicate that output failed to keep pace with demand at the previously existing prices and this was all the more serious because the commodities in question are important items of consumption for the great majority of Ghanaians. Between December 1967 and December 1969 the overall index of local food prices rose by 20 per cent—nearly twice as fast as the other items of consumption expenditure.

Two factors peculiar to the period contributed to this poor performance. One was the effect of the exceptionally heavy rains in 1968 which caused considerable damage to certain crops and added to the difficulties of marketing because of damage to the roads. Another factor was that the *Two-year Plan* could not be implemented as scheduled due to the fiscal situation, which necessitated stringent budgetary retrenchment. Allocations to the Ministry of Agriculture were sharply reduced

in 1967/68 and 1968/69 over those of the two previous years, and the burden fell particularly on development projects. There was, however, a welcome increase in the allocation for 1969/70.

The nature of the agricultural problem and policy objectives

However the slow growth in agriculture is more than a short-run problem because there is a long-term trend for the non-farm population to grow relative to the farm population and the raw material requirements of local industries continue to increase. That the agricultural sector has by and large not responded to the demands placed upon it despite relatively high prices for agricultural commodities is a manifestation of the basic problem of the low level of agricultural productivity, a consequence, of the limitation on the output of most farms to what can be produced with the traditional inputs, land and labour. The use of improved inputs, notably high yielding seed varieties and fertilizer, is still relatively insignificant.

The objective of the agricultural programme is therefore, to transform a predominantly traditional low productivity agriculture into a market oriented industry, in which farm inputs and production increasingly pass through commercial channels. This objective must of necessity be viewed as a long-term solution and the programmes outlined in the Plan constitute but an instalment on the wide ranging measures needed for the ultimate transformation of agriculture. The traditional agricultural system does not yield optimum results with the introduction of the new high yielding seed varieties. Nor can fertilizers, fungicides and insecticides be applied in the appropriate dosage under such cultivation conditions. The new seeds should ideally be planted in pure culture. The long-term objective will therefore be to wean the farmers away from their present cultivation practices and techniques into a system suitable for deriving optimum returns on the modern, improved inputs. This transformation is essential to the achievement of the substantial increases in production and productivity required for the continued growth of the economy as a whole.

The modernization of agriculture requires new inputs to transform a low income, low productivity agriculture into an industry with a large, low-cost production potential and this means investing in products and services purchased from outside the agricultural sector to supplement the traditional inputs. Capital, however, is in short supply, which is reflected in the shortage of loan funds, and capital goods are expensive, which is reflected in the rationing of foreign exchange, expensive machines and high construction costs. The methods and the inputs to be introduced must, therefore, be selected in the light of the fact that inputs of capital are relatively expensive and this places a premium on processes which give the highest yield per unit of capital expenditure.

In terms of the yield per unit of capital outlay, the purchased inputs fall into three broad classes. The first requires relatively small capital outlay and gives a high yield per unit of investment. Included here are investments in extension services, new varieties of seed, improved breeding stock, fertilizers, better feeds, maintaining animal health, protecting

crops against insects and diseases, and relatively simple machines. The second group requires larger capital outlays but gives a high yield per unit of investment. This class includes developmental research, land clearing and the marketing infrastructure, primarily roads, railways and storage facilities. The third class requires very large investments and gives a much lower yield within the relevant time span from a capital outlay than the other two classes. Items included are investments in large and sophisticated machinery of the type used in the developed countries, major irrigation works and facilities for carrying out fundamental research.

Given these opportunities for using capital and faced with restrictions on the availability of capital, the Government will concentrate upon improving the effectiveness of its extension services to private farmers in crop production, animal production and animal health. It will also emphasize the use of improved seed, fertilizers, land clearing, crop protection and applied research as aids to production. In marketing the Government will facilitate access to markets through transportation, feeder roads, storage programmes and market intelligence. Associated with these will be an expansion of credit facilities to finance the additional inputs required.

In implementing this strategy the Ministry of Agriculture, through its divisional organisation and in association with other private and public agencies concerned with agricultural development, is stressing increased co-ordination, planning and evaluation of agricultural programmes both at the national and regional levels. The policy will be to encourage increased participation by the private sector in such areas as the distribution of improved farm inputs and supplying certain mechanized services. The Government's provision of these services will be phased out in a smooth and efficient manner as the private sector moves in to cater to these needs.

Initially the Government's programme will emphasize key commodities which are presently imported, such as rice, cotton, bast fibres and sugar, as well as important domestic staple foods, such as maize, that have been in short supply in recent years.

In order to achieve the objectives and expand the activities described above, major shifts in the budget of the Ministry of Agriculture are being made. The Ministry will continue, and in 1970/71 largely complete, the process of disengagement from the earlier policy of State-controlled production and investments in major mechanization and irrigation schemes—a policy that contributed to stagnation in agricultural production. This disengagement involves terminating those State-operated production activities that are clearly unprofitable or do not show good prospects of becoming profitable in the near future. The remaining viable projects are being turned over to the private sector whenever feasible, or operated on a commercial basis without budgetary support. These resulting savings in the budget are being shifted to two major areas of Ministry activity, namely, programmes for assisting farmers to increase production and programmes for improving the commercial marketing of agricultural commodities.

Production support programmes

The production programmes of the Ministry of Agriculture include extension, production inputs, mechanisation, irrigation, credit, research, field trials and demonstrations. Each of these is discussed in the following paragraphs:—

Extension to Farmers.—The Government intends in 1970/71 and thereafter to emphasize improvement in the effectiveness of extension services to private farmers. This emphasis applies to all production divisions of the Ministry of Agriculture and to the three Commodity Development Boards, Cotton, Bast fibres and Grains.

The effectiveness of extension is being improved in 1970/71 primarily by regionalisation of the agricultural development efforts by a considerable increase in allowances for local travel of extension staff, by expanding the organisation of local farmers' commodities, by improved in-service training to upgrade existing staff (especially field assistants), by an increase in the number of extension specialist assignments, and by expansion of farm information services.

Regionalisation is aimed at more effective performance at district and local levels. The Local Administration Bill, now under consideration by Government, will provide machinery for co-ordination and direction of activities under Local, District, and Regional Councils, as called for under Article 156 of the Constitution. In addition, administrative steps will be taken to:

(i) extend and put into more general practice the responsibility of the Regional Agricultural Officer for directing and co-ordinating the operations of agricultural programmes in the Regions, a process started in 1969;

(ii) co-ordinate agricultural programmes under the Regional Agricultural Officer with other programmes through specific steps based on local conditions, with particular attention to health, education, public works, and rural development;

(iii) ensure such two-way co-ordination through Regional Management Committees;

(iv) extend the co-ordination of operations to the District level through the active use of District Management Committees; and

(v) attain systematic consideration of co-ordinated Regional project and programmes proposals in the development of Ministry of Agriculture budget estimates.

A key device being developed for improving extension activities is the Focus and Concentrate Programme in which the Ghana Government and U.S.A.I.D. are co-operating and which involves the preparation of management plans for individual farms. The extension staff works with farmers in deciding on the application of proven practices—primarily fertilizer and improved varieties—and in assessing income benefits. This

programme was initiated on a pilot basis in six extension districts in 1968. In 1970, it will include 300 farmers in these districts and be introduced to a few key farmers in all forty extension districts of the country.

An important element of Focus and Concentrate is the training of local volunteer farmers to work with new co-operators. It is the intention to utilize co-operating farmers to constitute a corps of unpaid volunteer leaders for getting recommended technology demonstrated and adopted by other farmers. The Government considers Focus and Concentrate to be an important technique to upgrade the extension staff by providing in-service training in farm-unit planning and by instilling in them the confidence necessary to work effectively with farmers.

Production inputs.—The organisation of a production input supply system is still in its infancy in Ghana and requires a considerable degree of Government participation. However, it is the policy of Government to attract private enterprise into these activities as quickly as the volume of sales increases to commercially-feasible level.

Seed multiplication of improved varieties recommended by the Crops Research Institute is carried out on five seed farms totalling 800 acres operated by the Ministry of Agriculture. At present, these farms are concentrating almost entirely on improved maize and rice seed, the demand for which has increased rapidly. In 1970/71 additional equipment is being purchased for the production, treatment and preservation of these seeds.

In 1969, the Government took the initial steps in converting the production of improved seed from a Governmental to a private operation. It is the intention to use the Government farms only for production of foundation seed, and to have certified growers multiply seed for distribution to farmers. A National Seed Committee and a National Seed Growers' Association have now been established. A draft of a national seed law is under review within the administration for eventual enactment by Parliament. In the first year of operation, six registered seed growers produced certified maize seed. For 1970, twelve growers have been registered. Total improved maize seed production this year is estimated at 750 tons, which would be 11 per cent of the national seed requirement. Improved rice seed production by registered farmers reached 1,000 tons in 1969, and a similar quantity is planned for 1970, quantities equivalent to 21 per cent of the national requirement.

Fertilizer importation and distribution are still handled exclusively by Government due to the relatively small volume involved. During 1970/71 Government will import and distribute to farmers 5,800 tons of fertilizer. This quantity is more than double the average annual utilization of fertilizers in recent years. At the present time the government sells a variety of fertilizers throughout the country at two sets of uniform prices, one for individual farmers and the other for institutions and large commercial farming companies. Fertilizers are sold at cost to the institutions and companies while individual farmers receive fertilizer at about

50 per cent of cost. Proceeds from the sales of fertilizer are paid into a revolving fund to be utilized to purchase additional stocks while funds covering the subsidy element and the expansion of the volume of fertilizer distributed are made available through the development budget. Forty per cent of the cost of importing and distributing the 5,800 tons of fertilizer (N₵220,000) has been included in the 1970/71 capital budget.

Under the terms of an agreement between the Government of Ghana and the Federal Republic of Germany, personnel, fertilizers and facilities are being provided to strengthen programmes of fertilizer demonstration and distribution in the Northern and Upper Regions. Government's contribution to this programme, N₵85,000, is included in the 1970/71 budget. Consultants from the FAO and the Management Development and Productivity Institute are presently engaged in an evaluation of the fertilizer distribution system on a regional basis. This evaluation is expected to culminate in the introduction of improved accounting and logistical control procedures during 1970/71.

In association with the FAO and UNDP, the Ministry of Agriculture through the Extension Unit has embarked on an intensive programme to increase crop production by the use of fertilizer, first in the Swedru/Ajumako districts of the Central Region and subsequently in the Ho/Kpandu districts of the Volta Region. The programme will include fertilizer field trials, soil survey and soil testing (in co-operation with the Soils Research Institute), extension and farm management advice, farm demonstrations, distribution of improved inputs, co-operative training and organisation. The programme was initiated in 1969/70 and will be supported during 1970/71 by a vote of N₵350,000 in the capital budget.

Mechanization.—For a number of years, Ghana has sought to introduce farm mechanization as a Government-operated service at subsidised rates. Over N₵25 million worth of tractors and other farm machinery were imported and an extensive network of tractor centres was established throughout the country. This programme has proved very costly and the amount of land it cleared and cultivated has been small. However, the programme did serve to acquaint farmers with the potential benefits of mechanization and there is now a significant demand for privately owned farm equipment.

The Government now considers that the time has come for transferring responsibility for farm mechanization services largely into the private sector. The Mechanization and Transport Division of the Ministry, while continuing to provide land-clearing and recurrent land preparation services, will embark on a concerted programme in 1970/71 to rehabilitate its fleet of tractors and farm equipment for resale to the private sector. For the immediate future, the Government will continue to perform land-clearing operations for farmers. However, increasing ownership of land-clearing equipment by the private sector will be actively encouraged. While the Government anticipates that farm mechanization will replace hand cultivation at only a limited rate, there is, however, a growing need

for advisory assistance to farmers on this subject. The Ministry of Agriculture, is, therefore, establishing a Farm Mechanization Extension Specialist Unit within the Crop Production Division.

Irrigation.—The irrigation programme appraises the country's irrigation potentialities, identifies feasible irrigation projects, formulates plans for their implementation, and carries out construction activities. During 1970/71 the programme will expand the number of small dams and dug-outs in order to provide more communities with water for human and livestock needs. Approximately N¢500,000 has been provisionally allocated to construct 21 small and medium size dams in the Volta, Upper, Northern and Greater Accra Regions. An additional N¢85,000 has been allocated to finance investigations of possible future small dams in the Volta, Upper and Brong-Ahafo Regions.

Of the medium-scale projects, N¢158,000 has been allocated for the Vea Dam project to bring an additional 400 acres under cultivation and to compensate families affected by the construction. The Ashiaman project in the Greater Accra area is being provided with N¢34,000 to cover the maintenance of the dam and the development of additional acreage below the dam. In the Central Region, N¢20,000 has been provided to study the feasibility of the development of a further 1,100 acres of irrigated land in the Mankesim area for vegetable production. The only large-scale project in the 1970/71 budget is N¢492,000 for the further development of the Asutsuare Pilot Scheme on the Accra Plain. In Pilot area A, 500 acres will be cleared and planted with maize and rice and the construction of irrigation facilities will be completed. Construction will begin on the training centres. This project is conducted in co-operation with the U.N.D.P.

Credit.—The acceleration of agricultural development requires investments in improved inputs, power and implements, processing equipment and hired labour. Often such expenditures must be financed by borrowing and credit is therefore necessary to an expanding agricultural programme.

The Agricultural Development Bank (A.D.B.) is the chief source of agricultural credit in Ghana. Additionally, the Bank of Ghana recently entered this field indirectly through its guaranteed credit scheme, and the National Investment Bank participates in the financing of certain agricultural processing activities. The Agricultural Development Bank received 982 loan applications in 1969/70 with request for loans amounting to N¢12.9 million. The Bank approved 524 of these applications and made loans totalling N¢3.2 million. During the 1970/71 the Agricultural Development Bank plans to increase the amount of credit available for various agricultural development programmes to N¢5.3 million. A breakdown of loans for this period is presented in Table 8–2.

In the agro-business area, financing is available for farm equipment and machinery needed by small, technically qualified young people who are prepared to establish and operate their own farm machinery hiring services.

TABLE 8–2

CREDIT FOR AGRICULTURAL DEVELOPMENT

(N£000)

	1969/70 *Actual Loans*	1970/71 *Estimates*
1. Agro-business (farm equipment) ..	120	300
2. Small loans	810	2,150
Maize		(250)
Rice		(1,000)
Pineapple		(100)
Cassava		(300)
Ginger		(100)
Shallots		(400)
3. Industrial Crops	1,540	1,450
Sugar-Cane		(800)
Tobacco		(200)
Cotton and Kenaf		(50)
Oil Palm		(200)
Citrus		(50)
Rubber		(50)
Other		(200)
4. Livestock	600	600
5. Fishing	140	750
Total	3,120	5,250

The Agricultural Development Bank will continue to participate actively in the various commodity development programmes in 1970/71 by extending loans to participants in the grains, kenaf, cotton, rubber and tobacco development schemes which are discussed in the final section of this chapter, and sugar which is described in chapter 11. Heretofore, the Bank's investments in livestock have been mainly for poultry production. Emphasis during 1970/71 will be placed on the production of cattle, especially in the South Tongu area.

Research, Field Trials and Demonstrations.—The application of improved technology by farmers is dependent on the existence of a mechanism for disseminating, transferring promising research findings through a process of adaptation and demonstration under actual farm conditions to the point that reliable extension recommendations emerge. This type of mechanism has, to date, not been sufficiently well organised to enable farmers to take full advantage of the fruits of research. Its functioning requires planned joint-efforts of the research and extension organisations of the Government, often in co-operation with farmers. In 1970/71 the Government will establish an organisation for carrying out such co-operative research, extension field trials and demonstrations.

The major initial efforts will be with maize, rice, cotton and cattle. Some details on these aspects of the programme are provided in the sections dealing with specific commodities.

Marketing

The marketing of crops in Ghana, other than for cocoa, is predominantly handled by numerous small traders. This activity is competitive, but traditional in its use of technology. It is characterized by numerous inefficiencies that lower prices to the farmer, raise prices to the consumer, cause losses in storage and transit, create uncertainties in the market, and result in sharp dislocations in the quality and quantity of supply both seasonally and geographically. As the agricultural economy of the country moves from traditional, locally-oriented markets towards an integrated national market the inefficiencies become more critical. The Government's main concern in this area is that distribution and marketing problems should not develop into bottlenecks which will discourage production. It is therefore anxious to improve the market process, including distribution, transportation, storage, processing, grading and price rationalization. Measures to improve the efficiency of private marketing, distribution and storage are, in the long run, the most effective means for assuring fair prices and a ready market to the farmer. To this end the Government is anxious to see a strong Ghanaian private sector interest in the distribution of foodstuffs and will give every encouragement to firms which have potential or show promise of such potential. Its own programmes in the marketing sector are intended to build on, and improve the efficiency of the existing commercial trading structure. These programmes focus on storage and marketing, transport facilities and market intelligence. These are discussed below.

In the area of *storage and marketing*, credit and technical assistance will be extended to individual farmers, co-operatives and others to construct better facilities for preserving grains against losses from rodents and insects. The Grains Development Board will intensify its demonstrations of improved storage practices for maize, including the use of ethylene dibromide fumigation. The Agricultural Development Bank is earmarking N¢250,000 to be loaned for co-operative marketing and for storage so that farmers can more safely store maize for sale later in the season. The Grains Board and the Bank will also provide credit to expand processing facilities for rice as an essential complement to the programme for expanding production. The Cotton and Bast Fibre Development Boards will establish buying and processing facilities in selected areas of concentration. They will also establish assured prices for these crops to co-operating farmers and market their production to the fibre-using industries.

The Food Marketing Corporation (F.M.C.) has started a pilot storage programme in order to determine whether, through economics of scale, seasonal price fluctuations can be dampened. In recent years, prices have varied by as much as fifty per cent during the course of a single season. This programme has been financed by sales proceeds derived from a UN grant in 1969 of 10,000 tons of yellow maize. Utilizing

those funds, the F.M.C. bought approximately 4,500 tons of maize from the 1969 crop for sale during the pre-harvest period in 1970.

In 1970/71, the volume of the Corporation's marketings of local maize will be increased to approximately 10,000 tons at which level of operation it is anticipated that it will be able at least to break even on current account. Although the F.M.C. will require approximately N₵140,000 in short-term credit as supplementary finance for the 1970/71 programme, it is planned to obtain these funds from local banking institutions rather than through the Government's budget.

The deterioration of roads and the transport fleet has had deleterious effects on the ability of farmers to market their production and on the costs of distribution. In fact, of all marketing functions, *transportation* of agricultural produce from the farm to the market presents the most pressing problem. In 1970/71, the Economics and Marketing Division will complete surveys of 32 feeder roads. Plans for road construction are described in chapter 13 of this Plan.

The food distribution system has also been adversely affected by recurrent dislocations in supply. At a time when shortages exist in some consuming areas, farmers in producing localities may be experiencing difficulty in marketing their crops. In order to ease this problem the Government will step up its market intelligence reporting to the trade. The publication of weekly and monthly food situation reports will be continued and in co-operation with FAO information on the current food situation, plantings and production forecasts will be collected at the district level for inclusion in the monthly crop report. The Government will also investigate the utility of a spot marketing report programme, using radio and newspaper bulletins, as a means of stimulating traders to move into outlying areas where temporary surpluses are depressing farm prices.

The Government recognizes that more direct action to deal with failures in the commercial marketing systems for local foodstuffs may be necessary and has thus created the Emergency Task Force for Food Distribution to supplement the efforts of the Food Marketing Corporation. The Task Force was established in March, 1970 to improve the flow of food into the urban areas. A cabinet committee was set to direct the activities of the Task Force under the chairmanship of the Minister of Agriculture and a management consultant was engaged to prepare an operational plan for the organization.

The Task Force will deal initially with 6 commodities (maize, rice, yams, cassava, plantains, and cocoyams) and will subsequently expand to cover a total of 18 basic food commodities throughout the country. The major surplus and deficit areas have been identified. Large numbers of traders operating in these areas have been contacted and registered to serve as buying and selling agents for the Task Force. The Task Force will operate a system of fixed prices, covering both purchases and sales. It will instruct its buying agents to purchase supplies at the specified prices, in which they may be assisted with short-term credit to finance their operations. The Task Force proposes to collect produce directly

from the buying agents in the producing areas for delivery to collection points and urban consuming centres. For this purpose it will initially operate a fleet of vehicles obtained from other Government agencies and plans eventually to purchase its own fleet of vehicles and to operate its own repairs and maintenance facilities.

Food arriving in the urban centres will be distributed to registered retailers who will sell at specified prices on a commission basis. The Task Force will in time undertake to construct modern retail outlets for basic commodities in the residential areas which will be sold to interested parties on a hire-purchase basis. Plans are also being laid to complete the construction of the regional food centres which were formerly part of the Drevici Group of Companies. Each food centre will include dry storage and a 4,200 cubic foot cold store. The Force plans to engage in large-scale storage of rice, maize, yams, and plantains when these food centres become operational. The Task Force has been provisionally allocated N¢250,000 as working capital for its first three months of operation. The organization will initially concentrate its marketing activities in the Eastern Region and will expand to other areas as and when the viability of the operations has been demonstrated.

In the area of direct price interventions, the Government in the past two crop seasons established minimum producer price objectives for maize and rice. The prices set, however did not become operative since national market prices were above the minimum. However, considering the rapid increases in rice production that have occurred in the last two years, the need for direct price intervention in the form of a reasonable minimum price will have to be considered in the future if the farmers' efforts to increase productivity are not to result in low prices for his crop. The Government appreciates the difficulties involved in the effective defence of a guaranteed minimum price in the event of a bumper crop and is presently reviewing the policy to devise workable procedures for its implementation.

Commodity highlights

There is a pressing need to increase production and improve husbandry practices for nearly all of Ghana's agricultural commodities. However, the Ministry of Agriculture can best serve the nation by concentrating its resources in a co-ordinated manner on a limited number of practical programmes aimed at overcoming major critical constraints on agricultural development.

A central feature of the Government's strategy for agricultural development is a series of development programmes focussing initially upon a few key commodities with co-ordinated participation by various public agencies in attaining programme goals. The precise organisational form of these commodity development programmes is influenced by the production and processing requirements of the specific commodity and its state of development. Government agencies and research institutions (in the case of oil palm), quasi-governmental boards and corporations (grains, cotton, bast fibres, sugar) and private companies (tobacco and

rubber) are all involved in the management of development programmes. During 1970/71 the Ministry of Agriculture will implement agricultural production programmes for major commodities as described below.

Grains.—In 1969 the National Liberation Council approved the creation of the Grains Development Board for the purpose of stimulating increased production of grains and legumes. This action was confirmed by Parliament in 1970. The board will be composed of a Secretariat which will co-ordinate the activities of various existing agencies concerned with research, extension, production, processing and marketing of graius. Whereas the development boards which have been set up for cotton and kenaf are charged with promoting the production of crops which are cultivated on a very small scale in Ghana at the present time, the Grains Development Board is dealing with commodities which are well established in the country and which are a major focus of a number of established public agencies, including the Crop Production Division of the Ministry of Agriculture, the Crops, Soils and Food Research Institutes, and the Food Marketing Corporation. The Board will work through and seek to increase the effectiveness of existing public agencies by developing comprehensive plans for the promotion of domestic grain production. Initially, the Board will focus its attention on rice and maize production since both commodities are imported at the present time and since technical considerations indicate the feasibility of major increases in production of these commodities through greater utilisation of improved seed and fertilizer.

The Board has been allocated a total of N₵800,000 in 1970/71 to continue on-going programmes for the promotion of rice production in the Northern and Upper Regions and for the production of the use of improved seed and storage techniques in the country's major maize producing areas.

In 1968, Ghana imported 30,000 tons of *rice* as compared with an estimated 38,000 tons of local production. The share of domestic production has been increasing relative to imports in recent years with a fair prospect that Ghana can be self-sufficient in rice, or even a net exporter, by the mid-1970's. The main factors affecting Ghana's chances for self-sufficiency in rice in the near future are the availability and utilisation of improved inputs, the adequacy of processing facilities, and import and domestic pricing policies.

In its first year of operation the Grains Development Board inherited a promising upland rice development programme in the Northern and Upper Regions. Early in 1969 a few tons of an improved rice variety (C4–63) was imported from the International Rice Research Institute in the Philipines. The seed went through two stages of multiplication during 1969, first at Aveyime in the Volta Region under irrigated conditions and secondly at Detoyili in the Northern Region. Problems were experienced in obtaining the necessary funds to purchase rice seed from registered seed growers for distribution and sale to farmers but it is estimated that several thousand acres will be planted with C4 –63 during 1970/71. For 1970/71 a total of N₵425,000 has been allocated for the

purchase, cleaning, drying and storage of maize and rice seed of which approximately N₵100,000 will go toward the purchase of 8,400 bags of rice seed, representing an estimated 20 per cent of total national seed requirements. The new variety of rice C4–63 yields more than double that of other varieties presently in use but its short growing season is not well suited to the climatic conditions of the northern part of the country. The Grains Board has been allocated N₵40,000 for the field testing of various rice and maize varieties at 14 locations throughout the country. The tests will be designed to verify certain research findings under field conditions and will be conducted in collaboration with the Crop Research Institute.

The Agricultural Development Bank and the Grains Development Board have jointly determined the additional harvesting and processing equipment required to cope with the planned level of production for 1970/71 and also to improve the quality of local rice. The bulk of the machines will be put into the hands of individual farmers and co-operative societies through the ADB loans scheme. The machines provided under the Grains Development Board allocation of N₵197,000 will render custom service to small scale farmers. Arrangements will be made to sell them to interested farmers or farmers' groups at the earliest time possible.

Ghana has traditionally been self-sufficient in *maize*, one of the most important staple foods in the country, with national production at around 300,000 tons in 1968. However, prices have risen in recent years in response to growing urban demand and the increasing feed requirements of the poultry industry; seasonal price fluctuations have also increased in severity.

Unlike rice, maize is grown extensively throughout much of the country at the present time. The problem is not one of bringing additional land into cultivation or popularising maize production, but of increasing productivity per unit of land and labour. The most promising and least expensive means of achieving higher productivity is through the increased utilisation of improved seed and fertilizer.

As a complement to the fertilizer distribution activities of the Crop Production Division, the Grains Development Board will purchase, clean, dry and store 15,000 bags of improved maize seed (Compsite II, III, Diacol 153 and Mexican 17) from registered seed growers during 1970/71. This represents an estimated 20 per cent of total national seed requirements for maize and will be available for distribution to farmers for the 1971 major and minor seasons.

The Grains Board in co-operation with the Crop Production Division will continue the demonstration of improved storage practices which was initiated in the Central Region in 1969/70. It is estimated that about 20 per cent of the maize produced in Ghana is lost to insects and other pests each year. The maize storage programme involves instructing farmers in the use of ethylene dibromide in fumigating maize before it is stored in traditional barns and cribs. In addition, measures to prevent rodents from entering such stores are demonstrated. An amount of N₵20,000 has been allocated to carry out farmer demonstrations in 1970/71 on 2,500 tons of maize.

Cotton.—The rapid expansion of the textile industry in recent years has created a large market for cotton. Currently, the lint cotton equivalent of textiles consumed in the country amounts to almost 90,000 bales and the capacity of the mill created in Ghana is around 55,000 bales. At present only about 4,000 bales are produced domestically and imports of raw cotton, textiles and clothing amount to about N¢26 million annually.

In 1968 the Government established the Cotton Development Board with the objective of expanding domestic production. In 1969, the first full year of operations, the Board assisted private farmers to grow 870 acres of cotton and a pilot gin was established in Tamale. The yields were fairly low, averaging around 300 lb. per acre of seed cotton. In 1970 the Board will concentrate on improving the yields and farmers' incomes by close supervision of agronomic and pest control techniques with the objective of assuring the profitability of the crop before embarking on a large expansion of acreage. The Board is being assisted in this effort by a team of four experts from the Compagnie Francaise pour le Development des Fibres Textiles and a United Nations project to test production practices and to train extension staff. An amount of N¢304,000 has been provided to cover a portion of the operating cost of the Board and the UN project during 1970/71.

Kenaf.—The Government established a Bast Fibres Development Board in 1969, to stimulate the domestic production of kenaf sufficiently to supply all of Ghana's annual needs of 12,000 tons, which is the maximum requirement of the Kumasi Fibre Bag Factory.

The year 1970, the first full year of operation, will be an experimental period. The Board has imported one ton of seed which has been planted on 100 acres of land near Ejura. One-half of the crop will be harvested for seed to be used for commercial planting by farmers in 1971 and the remainder will be used to test the performance and efficiency of the harvesting and ribboning machines that were imported in 1969/70. The Board has also acquired small lots of seed of six varieties that will be grown and compared for fibre yield in 1970.

In addition farmers who have had experience in growing kenaf will be encouraged to increase production in 1970 by offering them contracts to supply ribbons which the Board will process to extract the fibre for sale to the bag factory in Kumasi. An amount of N¢233,000 has been provided to cover the cost of operations of the Board during 1970/71.

Oil seeds.—Estimates of the amount of *palm oil* produced and consumed in Ghana range from 15 to 45 thousand tons. The discrepancy is mostly accounted for by varying estimates of the amount of palm fruit processed by the traditional method. Although oil palm products were Ghana's most important export during the early part of the century, the country is presently a large net importer of fats and oils; the value of imports of animal and vegetable fats and oils in 1968 was N¢3.9 million, including N¢3.0 million worth of tallow mostly used in the manufacture of soap. Domestic prices and costs of production for palm oil are high by world standards. The report on oil palm prepared by the

Government for submission to the World Bank noted that in 1968 the State Farms Corporation (S.F.C.) was retailing palm oil at N₵407 per ton as compared to the world market price at the time of about N₵125. The cost of producing one ton of palm oil by the State Farms Corporation was reported to range from N₵235 to N₵285 per ton. Until production costs are drastically lowered Ghana is likely to remain a large net importer of fats and oils.

The plans to expand palm oil production in Ghana have in recent years focussed upon increasing the supply of palm fruit to the Government oil mills. The only one now in operation, located at Asraku, has a capacity of 7,500 tons of palm oil per year which could be expanded in two stages to 20,000 tons per year. Nearly all the production of an expanded Asraku mill operating at capacity could be absorbed by the Lever Brothers soap factory, which has an estimated potential requirement for palm oil of 19,000 tons per year. The mill is presently operating at about 10 per cent of capacity because of the shortage of palm fruit. This result in higher production costs than using traditional methods of oil extraction.

The acreage under oil palm in Ghana is estimated to be about 112,000 acres of which over 90 per cent is on peasant farms. About 22,000 acres have been planted with improved high yielding varieties. The present acreage under wild oil palm is low yielding and subject to indiscriminate felling to produce palm-wine. It is estimated that an additional 55 to 60,000 acres of improved oil palm will be required to meet industrial and consumer demand during the next five years.

The Crop Production Division is facilitating the planting of oil palm by small-holders by providing improved seedlings to farmer. at a nominal cost. During 1969/70 over 800,000 germinated palm-nuts were planted in nurseries throughout the oil palm producing areas of the country; these will be ready for distribution to farmers in mid-1971. An additional 900,000 nuts will be planted in 1970/71 for distribution to farmers in mid-1972. According to the present schedule, the Division will be able to distribute planting materials for 10,000 acres annually beginning in 1971. These plantings should result in annual production increments of 5 to 10,000 tons of palm oil and palm-kernel oil during the latter half of the decade. The capital budget includes N₵216,000 for oil palm nurseries in 1970/71.

In order to rehabilitate the *coconut* industry in the Denu/Keta areas. the Crop Production Division will assist farmers in replanting areas previously devastated by the Cape St. Paul wilt disease. The programme consists of cutting out dead trees and replanting with known resistant varieties. The Division plans to produce sufficient seedlings to plant 1,000 acres annually beginning in 1971. In the Central and Western Regions the coconut nursery programmes will be enlarged to provide planting materials for approximately 3,000 acres annually beginning in 1972. The amount of N₵26,000 has been budgeted for nursery development.

While the Division's programmes emphasize the expansion of small-holder oil palm and coconut production the further development of large-scale plantations for these crops is being studied with the expectation of commercial or international financing of these projects.

Other Crops.—Tobacco has been grown on a commercial scale in Ghana since 1953. Flue and air-cured types were introduced first but during the past three years fire cured tobacco has also been produced. There has been a gradual increase in production since 1953 reaching a peak of about 2.5 million lb. annually over the past two years. This quantity is still much below the requirements of local manufacturers which imported 4.8 million pounds in 1968.

The Government was formerly responsible for organizing the production of tobacco leaf but in 1969 the Ghana Tobacco Company Limited was formed to take over the responsibility of planning for the industry. The Government, the Pioneer Tobacco Company Limited, the Agricultural Development Bank and the National Investment Bank are the shareholders and the Pioneer Tobacco Company is the managing agent. The Company intends to boost production and lower the costs of production by extending acreage and raising yields per acre through its extension services. The extension staff will be trained in the use of the best production techniques, including the use of suitable fertilizers, the application of improved cultural practices and proper handling of the crop during and after harvest. The programme of development is particularly concerned with improving the quality of the leaf produced and the Company plans to concentrate on areas where soils and weather are most suited to producing good quality tobacco.

A major effort to expand *rubber* production in Ghana is well under way in the Western Region where Ghana Rubber Estates Limited is in the process of planting and bringing the trees on the existing plantation and on smaller-holder farms into production. The Company is partly owned by the Government and is managed by the Firestone Rubber Company. According to present plans over 200,000 acres of rubber will be in production during the late 1970s and much of the resulting 10,000 tons of latex will be available for export. The Crop Production Division will promote smaller-holder rubber production in the Western Region by producing seedlings of high yielding varieties on a scale sufficient for the distribution of 100,000 per year, sufficient to plant 1,000 acres. The Division is in addition, operating a training school for farmers at Ayinasi in tapping and processing techniques. The capital budget for the school and nursery amounts to N₵20,000 in 1970/71.

To encourage the production of citrus the Crop Production Division will produce 300,000 budded citrus seedlings in nurseries in the Eastern, Central, Ashanti and Brong-Ahafo Regions for sale to farmers in 1970/71. Reports from the first indicate that the policy of free issue of citrus seedlings should be reviewed since it appears that the farmers do not adequately maintain seedlings which are supplied free of charge. The amount of N₵22,000 has been budgeted for citrus nurseries.

Livestock.—Ghana has a well established poultry industry, and is self-sufficient in both eggs and poultry meat. Meat production amounts to 6,500 tons of which 1,800 tons is produced from commercial egg laying flocks, 1,500 tons from broilers and an estimated 3,200 tons from backyard flocks.

The limit to the expansion of poultry production is the relatively small market for eggs and poultry meat at the prices at which these products must be sold to cover currently high costs of production. The combination of the high cost of feed and the low purchasing power of consumers will restrict the size of the industry until there is sufficient break-through in maize production to lower the price of maize used for feed. The expansion in the immediate future will, therefore, be about 4 per cent per annum, set by the growth of population and some anticipated expansion in consumers' purchasing power.

Cattle represent a very large import item involving 50,000 animals and foreign exchange requirements amounting to N¢5.0 to N¢5.5 million per annum. The market for beef from Ghanaian produced cattle is large since the possibility exists to substitute locally produced livestock for imported animals. Production problems are numerous but not insurmountable. In the open savannah lands for grazing in the north, there are difficulties in obtaining adequate water supplies, in controlling tsetse fly infestation and in obtaining feed for the dry season to carry the animals through without excessive loss of weight. The cattle of the indigenous West African Shorthorn breed are hardy animals but are not large producers of beef. Before the industry can expand some difficult management problems which require considerable study in the field have to be resolved. Research in breeding and feeding is under way but production will not in the near future be influenced by research findings to any appreciable extent. The problems of disease are difficult but manageable in that they could be controlled so as not to seriously impede expansion.

Pork is consumed in Ghana at the rate of 3,500 tons per annum, of which about 800 tons are imported. Pig production could be expanded by importing breeding stock because the feed mills for processing feed have adequate capacity and the disease problems can be controlled. But the high cost of feed is a barrier to inexpensive production and the market restriction is even greater than in the case of poultry because the Ghanaian consumer discriminates against pork.

The Animal Husbandry Division has developed a hatchery at Pomadze and a feed mill at Winneba which will be turned over to a company to be organised and financed by the National Investment Bank and the Agricultural Development Bank. The hatchery has a capacity of 10 million chicks per annum which is adequate to meet the needs of the poultry industry for many years. The feed mill has a capacity of 12.5 tons per hour which, together with other feed mills in Ghana, provides adequate capacity for poultry and pig production.

The Animal Husbandry Division maintains a small development unit in pig production with 200 breeding sows. In 1970/71 the Division expects to sell about 400 head of breeding stock from the herd. The construction and stocking of six piggeries at Adidome were completed in 1969/70 and N¢32,000 will be spent on the development in 1970/71. During the past two years the policy of the Animal Husbandry Division has been to concentrate on the production of poultry and pigs. Beginning in 1970/71 the Division will shift its resources to promoting the production

of ruminants, particularly cattle. The programme will stress the extension of improved practices (selection of breeding stock, pasture improvement and supplementary feeding) to livestock producers. This will involve pasture development and demonstration farms in the Volta, Brong-Ahafo and Upper Regions as well as improving existing breeding stations. In 1970/71 a block of 1,000 acres in the Volta Region will be developed as improved pasture at an estimated cost of N₵40 per acre. The development work includes bulldozing and windrowing the vegetation, followed by discing the land prior to sowing a grass and legume mixture.

The Division will set up two rural cattle development units in 1970/71, one in the Techiman district of Brong-Ahafo, the other at Kulogo Naga in the Upper Region. The programme includes opening up pasture land by clearing away the tree growth to permit the natural grasses to take over and to reduce the incidence of tsetse-fly. The area will then be stocked with cattle supplied by local farmers. The amount of N₵75,000 will be spent on the project in 1970/71. The Division maintains a number of livestock breeding stations which serve as multiplication centres. The facilities at eight of these stations will be improved in 1970/71 at a cost of N₵257,000.

The Division concerned with *animal health* has carried out a programme of poultry disease control and diagnostic services over the past two years. The Division plans to spend N₵50,000 in 1970/71 to provide sufficient vaccine for 2 million Fowl Pox and 10 million Newcastle Disease vaccinations. The Division's programme for ruminants covers veterinary services in the rural areas, specific disease control programmes and regional clinics. The provision of veterinary services to the rural areas is a continuing task. Although the project is progressing satisfactorily it has not had the desired impact owing to the considerable distances between cattle dipping centres and it has been found necessary to construct more units to service small groups of villages. The Division has also found that a considerable amount of extension work is needed to educate the farmers in the advantages of having their livestock regularly dipped and worked. To provide such a service, demonstration units have been planned on a district level to show that benefits may be gained from the practice of routine preventive and husbandry practices. In 1970/71 the amount of N₵120,000 will be spent to provide 6 more dips and 14 spraying units. It is expected that 100,000 cattle, sheep and goats will be treated for internal and external parasites.

Brucellosis control is a continuing project aimed at reducing the incidence of this disease among cattle until it has been eradicated. It is estimated that the control of this disease would bring about an increase of 23 per cent in the yearly calf crop. The past year's programme covered the Northern and Upper Regions. In 1970/71 the amount of N₵60,000 will be spent to extend the programme to the rest of the country; about 50,000 calves and adult cattle will be vaccinated.

Trypanosomiasis is one of the most serious cattle diseases in Ghana and is an important inhibitor to the growth of the cattle industry. The disease also affects other animals especially sheep and goats and humans

are also susceptible. The economic loss due to this disease is very great and the time has come for a definite effort to be made towards effective control. The Division is setting up a trypanosomiasis control unit charged with the responsibility of salvaging some of these areas for the rearing of livestock. This is a long-term programme and an initial sum of N₵20,000 has been provided for preliminary work in 1970/71. The control of rinderpest has brought to the fore the importance of contagious bovine pleuro-pneumonia as a devastating disease. This disease was formerly localized in a few areas in the Upper Region but has now become more widespread. The disease is difficult to control and requires a combined vaccination, slaughter and compensation programme. This, too, is a long-term programme and N₵25,000 will be used in 1970/71 for preparatory work.

Research in animal science is carried on by the Animal Research Institute (A.R.I.) and the Universities. The policy of the A.R.I. covers six major areas in animal science as follows:—

(*a*) Poultry science—general nutritional studies of local feeds requirements under tropical conditions, broiler and egg laying tests.

(*b*) Animal breeding—selective breeding and crossing with exotic breeds of cattle, climatic stress, genetic studies of goats, pigs and grasscutters.

(*c*) Pasture—studies of local and imported grasses and legumes.

(*d*) Nutrition and biochemistry—investigations of leguminous plants as protein supplements, the nutritional qualities of home-grown feeds and toxicological studies of insecticides.

(*e*) Entomology and parasitology—methods of controlling tse-tse flies, tick-borne diseases, immunological studies of swine kidney worm and the helminth parasites.

(*f*) Animal disease—the pathology and pathogenesis of Nagana in cattle, sheep and goats, epizootiology studies of specific micro-organisms in disease causation.

In 1970/71 the Animal Research Institute will use N₵95,000 from the capital budget for wheat bran feeding trials and research into poultry disease, goat husbandry and pasture development.

9. FORESTRY

The objective of the Government's forestry policy is to optimise the utilization of the country's forest resources by a careful and planned exploitation of the timber reserves. An important feature of this policy aims at popularising the secondary species and maximising their use. The other aspect of the Government's policy aims at regeneration of existing forests and re-afforestation.

The main products of Ghana's forests are timber, fire-wood and charcoal for household use. In all, Ghana has 4,564 square miles of production reserves, 3,996 square miles of protected reserves and 35,120 square miles of unreserved forest mostly in the savannah areas where the output of forest products per acre is extremely low. Timber is extracted from the production reserves and the unreserved forests which yield species classified as (i) prime timbers, i.e. primary snecies, (ii) Wawa, (iii) secondary species currently marketed, (iv) other secondary species which can be developed.

Of the four categories, the prime timbers sell for high prices relative to the costs of extraction. Consequently the rate of extraction is much higher in both the reserved and unreserved forests than that of other species. In the reserved forests the rate of extraction is lower than in the unreserved forests because of the adoption of a 25-year felling cycle which is intended to offset the rapid rate of exploitation in the unreserved forests. However, because the production reserves occupy only 4,564 square miles it is obvious that if the present rate of felling is continued the resource base of the timber industry will be seriously limited before long. The policy of a 25-year felling cycle has been criticised on the grounds that mature trees left standing for too long develop defects which reduce their value as commercial timber. A second criticism is that the growth rate of the younger commercial species is retarded by the canopy of the mature trees. Although it is true that some timber is lost by adoption of the 25-year felling cycle, nevertheless, the process can be reversed without any serious threat to the industry only when the measures for facilitating natural regeneration and programmes for re-afforestation are stepped up. In the present position, where the small logger, and even the larger companies, cream the unreserved forests and leave most of the secondary species, the process cannot be easily reserved.

Most timber contractors, especially the small loggers, extract only those species which are in great demand on the world market. In all 25 to 30 commercial species are extracted from a total of 150 known species. The larger companies generally extract between 15 and 17 species each, depending on the world market price. Seventeen species are regularly exploited including eight primary species and Wawa. In 1967, for example, the primary species and Wawa constituted 85 per cent of all fellings by the industry. This proportion could have been higher in 1969 had there been a higher world price for Wawa. Wawa extraction only increased from 47.8 per cent of total fellings in 1967 to 49.4 per cent in 1969. In 1970 extraction is expected to decline because of a drop in prices which took place in December, 1969.

Of the 57 timber companies in Ghana, only five have so far established or are in the process of establishing facilities for processing the timber beyond the lumber stage. The products of the processing plants are mainly plywood and veneer. The majority of the big and medium-sized companies are log and lumber producers. The lack of adequate processing facilities accounts for much waste in the timber industry. Small loggers usually leave non-exportable logs in the forest to rot, unless they can get good prices for these from the saw-millers. About 30 per cent of timber is lost to the industry through the inefficient use of the timber by the small timber concerns. Another source of waste is the felling of primary species in preparing land for farming. In all it is estimated that approximately 60 per cent of Ghana's timber is being wasted.

The Department of Forestry undertakes two types of programmes to increase the stock of commercial species: replanting (re-afforestation), and regeneration of existing forest. In the fiscal year, 1968/69 a total of 1,716 acres was planted to timber of quick growing species, the Regional breakdown being as follows:—

Region	*Acres planted*
Ashanti	276
Brong-Ahafo	660
Western	780

This brings the total acreage planted to timber to 3,680 acres, i.e. 5.75 square miles since the inception of the re-afforestation programme in 1967. The target set for re-afforestation is 5.0 square miles (3,200 acres) per annum. The main reasons for this poor performance realized in 1967–69 of some 2.9 square miles replanted per annum have been the inadequate appropriation of funds under the development budget and lack of adequate numbers of trained personnel.

The critical financial situation in Ghana has, in the recent years, led the Government to focus its attention on areas of economic activity other than re-afforestation, which has a long gestation period. The need to pursue re-afforestation programmes more vigorously cannot be over-emphasized in view of the importance of such programmes to the future of the timber industry. Since timber is the country's second largest foreign exchange earner, a determined and sustained effort at re-afforestation is considered essential if Ghana is to continue to retain her position in the timber industry. With the rapid rate of exploitation of timber in the unreserved forests (which now contribute about 60 per cent of total fellings) and the slow rate of replanting in the reserved forests, it is possible to foresee a decrease in forestry's contribution to the Gross Domestic Product. It has been estimated that by the end of 1980 the reserved forests will constitute the chief remaining resource base of the timber industry.

Under the first programme, the Department undertook, in October–November, 1969, site preparation for planting 4.5 square miles in the rainy season of 1970. During 1970/71 and subsequent years, the Department hopes to be able to raise its annual target to 5.0 square miles each

year to 25 square miles. Under the second programme, the Department covers annually 125 square miles by natural regeneration operations. This operation involves thinning and destruction of overhead canopy which might impede the rapid growth of commercial species. 150 square miles are therefore expected to be covered under the two schemes every year.

Research and Training

The Forest Products Research Institute is responsible for research into timber use and forest production. The Institute now concentrates on research into the properties and uses of timber species, diseases to which these species are prone and their control. Specie-trials are going on with the aim of testing the suitability of various timber agencies to different ecological zones.

The Institute still has some way to go before it becomes established with a full complement of staff and equipment. It is housed on the campus of the University of Science and Technology, Kumasi. In 1970 a start will be made to build permanent laboratories for the Institute. The possibility of housing research personnel nearer to their place of work will also be investigated.

Policies for 1970/71

The objective of forestry policy will be to increase the value-added generated in the industry. The exploitation programme will be so devised as to be consistent with the maintenance of the forest resources. To increase the industry's contribution to total value added in the economy the Government's policy of awarding concessions to firms on the basis of their possession of processing facilities will be vigorously pursued. To enable as many small timber merchants as possible to remain in business, the Government will encourage the formation of producer co-operatives where the resources of small companies could be pooled to render them more efficient in their operations.

The Government will encourage the increased utilization of secondary species locally as a means of preserving the prime species which have better export markets. To this end it is planned to establish timber depots in all Regional centres of the country where secondary species could be seasoned for local consumption. In the plan period 1970/71, two such depots will be established in Accra and Kumasi and these depots will be fed with secondary species by both the Timber Marketing Board and private contractors.

The silvicultural policy adopted by the Department of Forestry seeks to increase the stock and to improve the quality of prime timbers by natural regeneration and replanting as outlined previously. About 150 square miles will be covered annually under these programmes. In 1970/71 the Department will keep eighty teams of technical staff permanently in the field for work on regeneration. At the peak of the work some 40 additional teams would be needed. If the 25 square miles reafforestation target is to be attained the logistic and manpower requirements will have to be provided.

The shipment of logs has at times been delayed because of the practice of the West African Conference Line of giving priority to the cargoes of its members. As a result logs are left too long in the timber pond and are damaged by marine borers. In the plan period the Government will ensure the shipment of logs and lumber on time by consigning as much of the timber shipments to the Black Star Line as possible. Also the structure of the export tax on timber renders some species sub-marginal for export as logs and contributes to waste of timber. The Tax Review Commission is reviewing the tax structure and will make recommendations with a view to removing any adverse effects on the industry.

The rate of exploitation of timber is at present not in tune with the regulation laid down by the Department of Forestry. Undersized trees are still felled in the unreserved forests and farms are made in the more inaccessible parts of the reserved forests. The rules against felling undersized trees will be rigidly enforced and those who enter reserved forests to farm will be prosecuted.

The Government is in the process of considering the creation of a Forestry Trust to co-ordinate forestry policy. The relationship of the Trust to the Forestry Division and the Timber Marketing Board is being studied with a view to enacting legislation in the near future.

In order to discourage the establishment of small companies no new timber companies which intend only to export logs and lumber will be given permits to operate. Instead the Government will encourage the establishment of integrated timber processing factories which are capable of producing plywood, veneer and more advanced products based on timber.

As a result of complaints received from buyers with respect to specifications, the Government will provide training facilities for the Inspectorate Unit to properly equip timber inspectors in the discharge of their duties. The Unit will be required to establish grading rules which suit local conditions.

10. FISHERIES

Review of Progress

The objective of the *Two-year Plan* was to increase domestic fish production so as to reduce the economy's reliance on imported fish. Although importation of fish still continues, fish catches have been increased as a result of both increases in the landings by canoe fisheries and by motorised fishing vessels. The actual performance over the past four years is shown in the table below:—

TABLE 10–1

OUTPUT OF GHANAIAN MARINE FISHERIES, 1966–69
(thousand metric tons)

Item	1966	1967	1968	1969
1. Canoe catch	25.2	39.9	33.3	60.2
2. Motor fishing vessels	49.3	63.4	60.8	80.8
3. Total catch	74.5	103.3	94.1	141.0
(of which herrings)	(13.3)	(42.7)	(12.2)	(30.4)
4. Imports	24.8	12.0	11.0	7.8
5. Total marine landings ..	99.3	115.3	105.1	148.8
6. Transhipped exports	7.8	7.8	21.0	23.0
7. Apparent consumption ..	91.5	107.5	84.1	125.8

The low figures for total marine fish catch in 1968 reflected the effect of the heavy rains during that year which shortened the fishing season. In 1969, however, the fishing industry showed a remarkable recovery, increasing its total catch by 35 per cent over the 1967 level. Catches of fresh water fish, both from rivers and the Volta Lake, were also reduced in 1968 when because of the heavy rains the rivers were too flooded to permit intensive fishing. In 1969 however, fresh water fish landings were estimated at between 20,000 to 70,000 tons of which the fishing operations around the Volta Lake accounted for 90 per cent.

The major portion of the total fish catch was still processed in the traditional manner during 1969. However, the Division of Fisheries has designed a simple kiln which when introduced after further testing will improve upon the present methods of fish preparation. Actual cold storage capacity for fish in 1967 was 9,300 tons. The *Two-year Plan* forecast an increase of 7,700 tons by 1969. The actual installed capacity fell far below this target as shown in Table 10–2.

TABLE 10–2

COLD STORAGE CAPACITY

(Tons)

TWO-YEAR PLAN					
	1967	*Plan Projection*		1969	
	(Actual)	1968	1969	*(Actual) Region*	
Tema	7,200	11,200	11,200	Greater Accra ..	12,000
Accra	1,800	1,800	1,800	Central	65
Kumasi	300	300	1,500	Ashanti ..	320
Sekondi-Takoradi	—	—	2,000	Western ..	380
Tamale	—	—	500	Brong-Ahafo ..	3
				Volta	15
				Eastern ..	70
				Upper	40
Total ..	9,300	13,300	17,000		12,893

Actual cold storage capacity only increased by 3,593 tons over the period 1967 to 1969, less than half of the projected increase. This failure was largely due to a lack of funds to undertake construction of such facilities. Although it had been expected that the private sector would undertake to build the major portion of the cold storage capacity called for, the State Fishing Corporation also failed to implement its programme especially in the rural areas.

Due to the increasing numbers of fishing vessels using Tema harbour the facilities at that port have become inadequate to permit rapid unloading of catches. Repair facilities at Tema are also congested, increasing the time fishing vessels remain idle awaiting repairs. In 1969 the Government undertook a study of the possibilities of constructing an alternative fish harbour either at Mumford or rehabilitating the harbour at Elmina. A loan of N₵230,000 has been obtained from I.D.A. to undertake a feasibility study for an alternative port site. The construction of such a harbour in the vicinity of the Central Region's shore line is particularly attractive as these fishing grounds are only lightly fished at present while other fishing grounds are being overfished, leading to the possibility of sharply reducing the catch in such areas.

In 1969 the Division of Fisheries and the Boatyard Division of the Ghana Industrial Holding Corporation, which are responsible for the repair of outboard motors and fishing trawlers, faced difficulties in obtaining spare parts and other items. This increased the idle time of many boats and trawlers and led to a considerable loss in terms of fish landings lost. The decision to place spare parts imports on Open General Licensing (O.G.L.) has ameliorated this situation.

Policies for 1970/71

The policies for 1970/71 will concentrate on achieving a better utilization of existing capacity in the fishing sector and, through continued support for research activities, providing the information necessary to increase Ghana's future fishing output. Thus the public sector investment programme for fishing will be kept quite small, at N¢285,500 for the Fisheries Division.

The 1970/71 import programme contemplates an extension of the O.G.L. scheme to cover all inputs for the fishing sector, in particular adequate gear and spare parts. The Government will not extend additional loans for the purchase of new vessels but will make funds available for the purchase of equipment needed for the efficient utilization of existing vessels.

Cold storage facilities, especially in the rural areas, must be expanded to help lower the high cost of fish by reducing wastage. The Agricultural Development Bank and the National Investment Bank will loan funds to companies and co-operatives interested in establishing cold storage facilities. The emphasis in this effort will thus be largely on the private sector.

The State Fishing Corporation and other fishing enterprises will be encouraged to sponsor cadets to the Nautical College at Nungua so as to use these facilities to the fullest. A considerable shortfall was experienced in the enrolment of students at Nungua. Only 65 students are presently attending this college although the school has facilities for 140. One reason for this result appears to be the high fees charged by the college. The all-inclusive fee for a residential cadet is N¢800. While it is hoped that the fishing industry will respond to the opportunities provided by the Nautical College, the Government will, if necessary, itself provide scholarships.

Research activities will be continued for both marine and Volta Lake fishing. Special attention will be given to investigating the possibility of exploiting off-shore shrimp banks and the programmes for pond building and artificial insemination of inland waters will be continued.

Ghana has the potential not only to supply its total demand for fish through domestic production but to export fish and fish products as well. The Government attaches a high priority to the domestic fishing industry as a source of animal protein. Development of this industry requires careful identification of fishing grounds and the development of ancillary facilities so as to efficiently exploit the potential for fishing without depleting these resources.

11. MANUFACTURING (1)

Sector performance and prospects

During the period of the *Two-year Plan* the output of the manufacturing sector continued to expand rapidly, as is shown in Table 11–1 below. In real terms value-added is estimated to have increased by 18.7 per cent between 1967 and 1969 in the sector as a whole, or slightly below the Plan Projection of 20.7 per cent. However, the estimate for small manufacturing establishments is based on a rather conservative premise (*see* footnote to Table 11–1) and for the "large" establishments on which direct data are available the indications are of a 23.7 per cent increase in value-added—well above the overall Plan Projection.

TABLE 11–1

MANUFACTURING VALUE-ADDED AND PRICES, 1967–69

Value in N₵'million

	1967	1968	1969	*Percentage increase* 1967–69
Firms with 30 or more employees				
1. Valued added in current prices	97.9	115.0	137.3	40.2
2. Price index (1968=100) ..	94.6	100.0	107.2	13.3
3. Value added in 1968 prices	103.4	115.0	128.0	23.7
Firms with less than 30 employees				
4. Value-added in 1968 prices(a)	56.9	57.5	62.3	9.5
Total Manufacturing				
5. Value-added in 1968 prices (3+4)	160.3	172.5	190.3	18.7

Note.—(a) Estimate based on the observed tendency for the value-added of these establishments to increase at the same rate as total GDP.

Although the balance of payments continued to constrain the availability of raw materials, imports of these and of spare parts increased enough in the plan period to give a fillip to production (*see* Table 11–2), for in Ghana the manufacturing sector is heavily dependent on imported supplies. The year 1969 came at the end of a period of stabilisation when

[1] Under the Manufacturing chapter are discussed related agencies (National Investment Bank, Capital Investments Board) and Corporation and agencies that come under the jurisdiction of the Ministry of Trade and Industries.

the policies pursued and investments undertaken previously started bearing fruit. It is likely that the rate of capacity utilisation increased in 1969 since the Ministry of Trade and Industries, which is responsible for approving new investments, did not license many new projects. In spite of the increase in output, the prices of local manufactures continued to rise by 13.3 per cent over the two-year period. Cost increases associated with the 1967 devaluation probably explain a substantial part of the price rise but it is also probable that excess demand continued to be experienced for some lines of production.

TABLE 11–2

IMPORTS OF RAW AND SEMI-FINISHED MATERIALS FOR MINING, INDUSTRY AND COMMERCE

	1966	1967	1968	1969
Value (N₵'million)	64.9	74.3	88.9	97.7
Index (1968=100)	73.0	83.6	100.0	109.9

Table 11–3 presents detailed information on selected industries. In general the value added/gross output ratio has not improved for most sectors. As far as relative shares in total output are concerned there have been slight declines in the important industries, e.g. beverages, tobacco, wood and chemicals while the contribution of cocoa products and garments have become significant. The general situation is that although aggregate output in the large-scale establishments of the sector was above the *Two-year Plan* target, improvements did not take place in the ratio of value added to gross output. As subsequent paragraphs demonstrate, there is reason to believe that considerable excess capacity still exists in the industry. Further improvements in raw material supplies and an expanding domestic market would help to improve capacity utilisation.

GROSS OUTPUT AND VALUE ADDED IN MANUFACTURING INDUSTRY FOR ESTABLISHMENTS EMPLOYING 30 OR MORE PERSONS IN CURRENT PRICES

(N£ million)

Selected Sectors	1967				1969			
	Gross Output	Value Added	Value added: Gross Output %	Share in Total Value Added %	Gross Output	Value Added	Value added: Gross Output %	Share in Total Value Added %
Food Industries { Food	7.1	3.9	54.9	4.0	18.1	7.4	40.9	5.4
Food Industries { Cocoa Butter	11.4	0.1	0.9	0.1	15.8	5.5	34.8	4.0
Beverages	18.5	13.7	74.0	14.0	25.3	17.9	70.8	13.0
Tobacco	21.0	17.7	84.3	18.1	25.6	21.7	84.7	15.8
Textiles	15.3	9.0	58.8	9.2	33.9	13.2	38.9	9.6
Garments	7.1	4.1	57.7	4.2	15.1	7.2	47.7	5.2
Footwear	1.8	0.7	38.8	0.7	4.3	1.8	41.9	1.3
Wood and Cork	23.7	13.0	54.8	13.3	30.4	16.2	53.3	11.8
Furniture and Fixtures	2.3	1.3	56.5	1.3	2.4	1.3	54.2	0.9
Paper and Paper Products	5.0	2.7	54.0	2.7	9.1	4.9	53.8	3.6
Ch mical and Chemical Products	20.0	8.5	42.5	8.7	28.0	11.4	40.7	8.3
Metals	9.9	4.4	44.4	4.5	12.3	5.4	43.9	3.9
Total of above	140.8	79.1	56.1	80.8	220.3	113.9	51.7	83.0
Total Manufacturing	170.8	97.9	57.3	100	262.9	137.3	52.2	100

The overall prospects for manufacturing industry would be significantly improved by an expansion of exports of manufactured goods. Exports of manufactures have shown some improvement in recent years but most of this has been concentrated in two or three industries and most manufacturing plants in Ghana still sell almost exclusively to the domestic market. A variety of factors continue to inhibit export performance:

(i) a weak competitive position resulting from high production cost exacerbated by an over-valued currency;

(ii) poor and variable quality of output;

(iii) inadequate knowledge of overseas markets, and trade discrimination, especially by neighbouring countries associated with the European Economic Community;

(iv) cumbersome export and tax procedures.

Measures being introduced in 1970/71 to improve the export prospects of the industry include a selective export bonus scheme, a streamlining of export and tax procedures and the mounting of a sales campaign by the Ministry of Trade and Industries. It is hoped that an increase in demand will increase the output of the sector.

As regards quality control, a number of institutes have been conducting research on the products presently on the market. Their results will be made available for general use. However, to enforce quality consciousness it will be the policy to begin to effectively enforce existing legislation on quality control through the National Standards Board (N.S.B.). A number of standards have been promulgated by the Board and the Government intends to ensure that producers adhere to them.[1]

Further growth in the sector will no doubt depend on general developments in the economy. The projections made on the prospective growth of the sector in this plan are contingent upon foreign exchange availability, which will determine the permissible increases in raw material imports. For 1970/71 the policy of increasing production through rationalisation, increased use of capacity and expansion of existing plants that was inaugurated in the *Two-year Plan*, rather than increased investment, will be continued. Given current expectations of foreign exchange resources and overall economic growth, it is not expected that manufacturing output will exceed 15 per cent in the coming year. A range of 10 to 15 per cent increase has therefore been set as the target for 1970/71. On the employment side no significant increases in job openings are expected, mainly because there is considerable scope for productivity increases beyond the existing levels.

The supply and demand balance and indications of investment opportunities

Extensive studies have been undertaken in the Ministry of Trade and Industries with a view to identifying new avenues for industrial expansion. A major conclusion of the studies is that opportunities for traditional

[1] For more detailed discussions on these proposals *see* the section on the N.S.B. below.

import substitution, namely finished goods for the domestic market, are fast diminishing. Industrial promotion policy must, therefore, now be focussed on identifying new growth points such as exports and the production of intermediate and capital goods. The need has also been identified for instituting backward integration and rationalising industrial structure in general. It is government policy to encourage developments along these lines.

Textiles.—Capacities already installed are generally adequate to meet projected demand. However, considerable excess capacity exists in the machine printing branch of the industry. There is at the same time a supply gap in wax prints. Since the additional investments required would be small if undertaken by existing firms, it is hoped that those with the know-how will fill this gap. There is also some scope for backward linkage in yarn production, depending on the expected differentials in the prices of yarn and cotton. It is known that there is considerable excess capacity in the knitwear industry.

Footwear.—In the footwear industry, existing capacities are at least twice the projected level of demand in 1975. Government will therefore not encourage any further investments in this field for the time being.

Leather Production.—The expected demand for leather is adequate to support the tanning facilities, both existing and planned. The tanning factory planned for Aveyime has been reviewed and it is now believed that the project would be viable if the plant were resited. However, since it would have to depend on imported hides, the foreign exchange benefits would be marginal; the benefits would be greater if the supply of local hides could be increased. The Government proposes to take a final decision on the project in 1970/71. It is hoped that the demand for artificial leather will be met from local production when two factories recently approved begin production towards the end of 1971.

Rubber.—Existing facilities in the rubber industry are sufficient to cater for all domestic needs except for certain specialised items such as bicycle tyres, cases for electric accumulators and regenerated rubber. The necessary additional investments in these areas would be small if companies already possessing the basic processing facilities would undertake them. The Government stands ready to support any endeavours in this direction by these firms.

Plastics.—Major plastics products, i.e. polyether film and household ware, are now manufactured here. The major exceptions are plastic pipes and packaging materials for replacing glass bottles and other containers. However, investments for domestic production of these products are now considered feasible. The Government therefore welcomes investments in these areas. A major problem with plastic products so far produced, however, has been their poor quality and high price. This has been largely a result of the use of poor quality machines and tools. Some replacement investment might prove necessary. So far only processing of imported plastic powders to various granulated compounds is feasible at present

The Ministry of Industries is finalising studies on investment opportunities and specific recommendations will be made during the plan year. To encourage competition in the industry the Government will enjoin producers to display their names on products which at the moment do not carry their names. In addition, the National Standards Board will enforce quality standards.

Metal industries.—There is scope for a foundry project to produce moulds, fittings for pipes, and castings for machine parts. The possibility of casting crushing balls for the mining industry is being investigated. It is considered that the current expansion of the Tema Steel Works being undertaken will greatly improve the profitability of the project. Additional minor investments would be welcome in the production of such items as screws, bolts, nuts, welded pipes and cutlery. Some applications for investment in these lines of production have already been approved.

Milk.—Two factories are at present under construction to produce evaporated milk and facilities for the output of reconstituted milk are also being expanded. Unfortunately, these will for some time remain dependent on imported raw materials, there being little prospect of increasing domestic milk production on a major scale in the near future, for reasons that are discussed in Chapter 8.

Flour milling.—One of the flour mills existing is being expanded and this is likely to result in a larger capacity than is required to meet projected demand.

Fruit and vegetable products.—Fruit canning has not in general been very successful in Ghana. The main constraints on the development of the industry have been lack of demand and lack of suitable raw materials. Inadequate planning has also contributed to the ills of the industry. The GIHOC factory at Nsawam, for example, has a pineapple canning capacity estimated at about 14 per cent of the total demand of Commonwealth countries. Among the Commonwealth countries, it must be noted, are leading producers such as Malaysia and Australia. Other potential markets offer no immediate prospects; while the Ivory Coast, for example, enjoys a tariff preference in the E.E.C. countries, the U.S. market is supplied by Hawaii. International trade in mango products is at present slight and the factory at Wenchi has production capacity for mango products estimated to be larger than the total world demand. At Pwalugu it is estimated that running the tomato-processing factory would mean initial losses of between N¢200,000 and N¢300,000 per annum unless better quality tomatoes (such as one being grown in Nigeria) can be grown very cheaply. The Ministry of Industries is to undertake a thorough review in 1970/71 of these projects with a view to taking a final decision on what to do with publicly-owned fruit processing factories.

Industrial Policy

The Government will continue to foster the growth of private industry and will not set up new Government-owned factories for products which private enterprises can successfully manufacture. Faced with the fact that

all existing industries depend on imported intermediate and capital items and the fact that the amounts available for such imports have not been increasing as fast as desirable it has been difficult to effect a very radical departure from the past pattern of import licences. In future, however, as and when more foreign exchange becomes available a deliberate attempt will be made by the Government to allocate a disproportionate share to those industries with a higher-than-average relative contribution to domestic value added. As a further step in the liberalising of imports, the raw materials and capital equipment requirements of certain industries have been placed on Open General Licence. Industrial policy will be guided by the following broad considerations:—

(i) For those industries with export potential and those based on substantial use of local resources and yielding high net earnings in foreign exchange, reasonable inducements such as special foreign exchange bonuses will be given. Also the customs duty draw-back arrangement for exporters will be simplified. The present procedures are cumbersome and largely ineffective.

(ii) Industries with potential for producing intermediate goods at competitive prices will be given the needed facilities either to establish or expand.

(iii) To achieve rationalisation increased licences will be given to those industries which by increasing their capacity utilisation levels can reduce costs substantially both to themselves and to other industries.

(iv) The Government will continue to encourage import substituting industries, especially those manufacturing essential commodities and those with low import contents.

(v) Concrete plans will be introduced in 1970/71 for promoting small and medium scale industries generally and in particular, within the framework of the New Ghanaian Business (Promotion) Act. Some of these plans are elaborated in the section of Chapter 18 dealing with Ghanaianisation.

(vi) To achieve increased rationalisation as regards the use of available resources and to encourage rural development the Ministry of Trade and Industries will control the expansion of existing industries and the establishment of new ones. A bill, "Manufacturing Bill" will be introduced in Parliament in 1970/71 to effect this control. Among other things, the aim will be to encourage increased use of labour and a shift of investments into rural areas.

In addition, various measures need to be introduced to improve the supply of locally grown raw materials for the country's agro-industries; these are described in Chapter 8.

Ghana Industrial Holding Corporation

The Ghana Industrial Holding Corporation (GIHOC) was established by the Government in July, 1968. The Corporation took over assets

(including bad debts) of N¢53.9 million. The assets are to be re-evaluated since those of some Divisions are either over-valued or include surplus plant and machinery.

At the start of its production the Corporation had serious liquity problems resulting from inadequate working capital. While the World Bank had recommended that GIHOC be given N¢20 million as working capital to begin operations with, the sum actually allocated amounted to N¢5 million in working capital and other capital resources plus N¢3.4 million in dated securities. GIHOC had in the meantime paid off debts totalling N¢5.4 million. Despite the difficulties posed by such a situation GIHOC had done well enough to be able to depend entirely on its own resources after pooling resources of the various Division together. This year the Corporation paid a first dividend of N¢1 million to the Government.

The Corporation took over the operation of 20 state enterprises involving 29 factories. The number of Divisions has now been reduced to 18 involving 26 factories. The Cocoa Products Division has been taken over by the State Cocoa Marketing Board, while a second has been sold. Participation has been accepted in what used to be the State Textile Corporation located in Tema.

A consolidated income and expenditure statement is shown in Table 11–4.

TABLE 11–4

GIHOC INCOME AND EXPENDITURE

(N¢'000)

	1968	1969(a)
Total Income	36,111	33,486
Total Income excluding Cocoa	22,828	21,985
Total Expenditure	31,943	28,919
Total Expenditure excluding Cocoa	22,136	21,865
Profit before depreciation and taxes	4,168	4,567
Profit before depreciation and taxes excluding Cocoa	692	120
Estimated depreciation based on 100 per cent book value of Assets	3,268	2,471
Net Profit before taxes	900	2,096

Note.—(a) Figures for Cocoa Products, Sheet Metal and State Textiles for 1969 cover only January to September.

The figures in Table 11–4 are provisional and are also subject to adjustment for a considerable amount of bad and doubtful debts, which are under review. Data for the years prior to 1968 are not available for comparison. Operating profits of N¢3 million are forecast for 1970. This would constitute a considerable achievement if realised since profits from

Cocoa Products Division would be excluded. In 1968 and 1969 Cocoa Products Division contributed 83 per cent and 97 per cent of profits before depreciation. Taking all 21 divisions together, 11 of them made operating losses in 1969 as against 9 in 1968. In 1970 preliminary results show that four more Divisions previously making losses will now make profits.

In general, progress in most of the divisions is heartening. This is including the Glass, Footwear and Fibre Bag Divisions which before were making rather big losses. A measure of this progress is the declining dependence of GIHOC on the budget after only two years' operation. In 1969–70 three divisions depended on the budget as compared to seven in 1968–69. In 1970 only the sugar division will receive support and this will be provided in forms that do not constitute a call on the budget. Finance of the Sugar Division will be through the Sugar Development Board to be set up. This Board will be financed by a Special Development levy of N₵22.40 per ton on imported sugar.

General Policy.—The period 1968–69 has been used by GIHOC to study the Divisions' problems and to reorganise. Before GIHOC took over control of these establishments there were serious problems of management, financial control and marketing. Gradually a new and more effective organisation is emerging with emphasis on reporting and credit control. Management in the Divisions is now controlled through management committees made up of the Divisions' top management, senior Headquarters personnel and GIHOC Board members.

The future policy of GIHOC is to achieve some measure of decentralisation with the ultimate aim of making GIHOC a true holding Company. This means that as and when possible the Divisions will become separate GIHOC subsidiaries with or without public shareholding. In order to facilitate the attainment of this objective efforts to improve managerial and technical competence in the Divisions will continue.

For the period 1968 and 1969 no new investments were undertaken apart from continuing projects in the sugar enterprises. Investment plans for 1970 are shown in Table 11–5.

A total of N₵5.9 million is planned for 1970, of which 70 per cent is earmarked for the Sugar and Glass Divisions.

TABLE 11–5

GIHOC CAPITAL EXPENDITURE BUDGET, 1970

(N₵'000)

Division	*Planned Investment*
Sugar—Asutsuare	1,414
Sugar—Komenda	234
Paper conversion	235
Steel works	465
Fibre bag	300
Glass	2,500
Other	731
Total	5,879

Situation Report.—The following paragraphs deal with the current situation in some of the GIHOC Divisions.

The book value of the assets of the *Footwear Division* is put at N₵4·1 million but it is suspected that this is overvalued. However, the main problem with this Division is under utilisation of capacity. The factory was designed to produce at full capacity 2 million pairs of shoes per annum. At the moment it produces only 500,000 pairs per year. GIHOC has mounted a special sales effort to increase sales, both domestically and externally. In order to increase the demand for the Division's products, it is proposed in the future to supply the needs of the Army, Workers' Brigade and Police from the factory.

Although the *Glass Factory* has the technical capacity to produce more than it currently produces the production lines are not well aligned to produce the major items currently in demand. While the main customers are the beer and beverage manufacturers, whose demand cannot be fully satisfied now, the factory has a capacity for the production of sheet glass well in excess of the total domestic market. If planned investments in new beer brewing facilities now under active consideration were to materialize then bottles would need to be imported to satisfy the additional demand. In response to this situation, a N₵2.5 million investment to re-align and expand capacities at the factory has been proposed. When this is completed in 1972 it is hoped that all the bottle requirements of the country will, be satisfied. This will save approximately N₵1.2 million in foreign exchange annually. It is also hoped that GIHOC would explore export outlets for its sheet glass output.

The *Fibre Bag Division* continues to suffer from two main problems: deficient demand and lack of domestic raw materials. The first problem arises from the inability of the State Cocoa Marketing Board to buy the quantity of bags assumed in designing the capacity of the plant. More-

over in the past little effort was made by the factory to sell bags to customers other than the S.C.M.B. To increase sales, the Division has employed a marketing specialist to mount a sales drive. Discussions will also be held with S.C.M.B. to agree on a new contract for the purchase of bags so that the factory's production programme can be better planned. At the moment the factory carries large stocks of finished products. The programme for growing bast fibres meant to provide local raw materials for the industry has not yet borne fruit. A Bast Fibres Board has been established to encourage the local production of kenaf but its programme is still at an experimental stage. GIHOC will co-operate fully with the Board in implementing the programme described in chapter 8.

Sugar Products Corporation.—The two factories at Asutsuare and Komenda together produced 4,379 tons of sugar in the 1968/69 season and 5,439 tons in 1969/70. A breakdown of production is given in Table 11–6.

TABLE 11–6

SELECTED DATA ON ASUTSUARE AND KOMENDA SUGAR PROJECTS

	Asutsuare			Komenda			*Grand Total*
	Plantation	*Farmers*	*Total*	*Plantation*	*Farmers*	*Total*	
Acreage available for harvesting							
1968/69	2,733	830	3,563	2,733	830	3,563	7,126
1969/70	2,160	2,500	4,660	2,879	1,363	4,242	8,902
Acreage actually harvested							
1968/69	1,534	1,119	2,653	1,600	830	2,430	5,083
1969/70	864	1,716	2,580	1,870	763	2,633	5,213
Tons of cane delivered to the mills							
1968/69	26,743	24,619	51,362	48,127	24,481	72,608	123,970
1969/70	10,456	26,332	36,788	44,043	19,792	63,835	100,623
Tons of sugar produced:							
1968/69	—	—	312	—	—	4,067	4,379
1969/70	—	—	1,202	—	—	4,237	5,439
Targets for 1970/71							
(i) New Planting	2,500	2,500	2,500	2,200	1,000	1,200	6,200
(ii) Acreage available for harvesting	3,500	3,500	7,000	3,500	2,600	6,100	13,100
(iii) Cane production (in tons)	25,000	40,000	65,000	105,000	78,000	183,000	248,000
(iv) Sugar production (in tons)	—	—	3,900	—	—	12,800	16,700

This indicates that in 1968/69 out of a total of 7,186 acres of cane available only 5,083 acres were actually harvested. In other words, 30 per cent of the total acreage available for harvesting was left standing in the fields. Again, the total of 4,379 tons of sugar produced was very low relative to the 123,970 tons of cane delivered to the mills. The average sugar recovery rate existing in most sugar producing countries is 10 per cent; the rate at Komenda was approximately 5.6 per cent while that at Asutsuare was less than 1 per cent.

The situation deteriorated in 1969/70. About 42 per cent of the available acreage was not harvested, as against 30 per cent in the previous year. In 1968–69 the average yield per acre at Asutsuare was 19.3 tons and that for Komenda was 30 tons; in 1969/70 the yields were 14.3 tons and 24.2 tons for Asutsuare and Komenda respectively. The sugar recovery rate for Asutsuare continued to be low. In the 1969/70 season, the rate was 3.26 per cent; the rate at Komenda improved to 6.6 per cent. There is still considerable scope for improvement.

The slow progress of the sugar industry in Ghana leaves a lot to be desired. Most of the factors contributing to the retarded progress are managerial and agricultural which can be solved with proper planning. The most important of these factors are—

1. Low productivity of labour: Production is far below the level existing in other countries; e.g. while in Malawi and Kenya the average harvesting tonnage per man productivity is 2–2.5 a day, in Ghana it is only 0.5 tons per man a day.
2. Irregular supply of cane to the mills, despiting cane availability.
3. A very slow and inefficient transportation system which leads to loss of sugar content; cane must be crushed within 24 hours of harvesting otherwise fermentation begins to take place resulting in considerable reduction in the sugar content of the cane.
4. Lack of co-ordination between the factories and some Divisions of the Ministry of Agriculture, especially the Mechanization and Transport Divison.
5. Lack of working capital; delays in the release of budgeted funds played a significant part in holding up operations in 1969/70.
6. High local costs of production of sugar combined with inadequate protection against sugar imported at prices which do not reflect the actual cost of production abroad.

Sugar could be a major foreign exchange saver but so far this potential has not been realised. The development of the industry was not well planned. The two factories have a combined capacity of between 33,000 and 40,000 tons depending on the length of the campaign. In addition to this Asutsuare has facilities for refining imported raw sugar. In 1969 and 1970 they produced at only 13 and 16 per cent respectively of the minimum capacity of 33,000 tons. As a result the cost of production was

very high. In 1969 the cost of sugar per ton at Asutsuare was N₵3,045 as compared to ex-warehouse plus duty price of N₵176.2 per ton for imported sugar. In 1970 there was an improvement which reduced production costs to N₵589 per ton but even at this levels costs were still far above the cost of imported sugar. Only at Komenda was there some satisfactory result. Production cost in 1970 was N₵151.4 per ton as compared to ex-warehouse price of N₵174 per ton.

Proposals were worked out and approved in 1968 for establishing a Sugar Development Board for the importation, production and marketing of sugar. Under the scheme the industry was to pay for itself. The proposals will be implemented in 1970/71 with the setting up of the Sugar Development Board. The Sugar products Division has ceased to depend on the development budget. Instead the development of the industry will be financed by a special development levy on sugar imports of N₵22.40 per ton. However, in order not to create any liquidity problems for the Division, GIHOC will be supported by the Government to procure funds from the banking system should this be necessary. Furthermore this levy on sugar will constitute some protection for the domestic industry.

The Government is fully aware that its policies alone will not solve all the problems. Thus, GIHOC is expected to solve the problems of organisation, management and labour productivity referred to earlier. At present results achieved by the managing agents in charge of the sugar mills are far from the planned expectation and there is need to review the operations and obligations of the agents. As a step to resolving the cane problem serious consideration might be given to letting the Co-operatives play an increasing role in providing the cane.

The targets for cultivation and production expansion in 1970/71 are indicated in Table 11-6. It is the intention of the Ministry of Agriculture to cooperate fully with the Sugar factories and the Agricultural Development Bank in promoting the production of sugar-cane to feed the factories. By the end of 1970/71 the Mechanisation and Transport Division plans to have completed the required clearing operations at Asutsuare of some 4.000 acres—1,500 for the plantation and 2,500 for out-growers. No new clearing will be undertaken at Komenda for the plantation although some private farmers may have land cleared by the Division. In 1969/70 a total of nearly N₵1.0 million was invested by the Agricultural Development Bank in sugar-cane production and the Bank will invest an additional N₵800,000 in 1970/71.

The Irrigation Division is constructing irrigation facilities for 3,500 acres at Komenda which will be completed in early 1971. Also 2,750 acres of irrigated land will be ready for cultivation at Asutsuare at the end of the year. Investments in supporting facilities such as housing and transportation will be undertaken to increase productivity in harvesting.

Joint State/Private Enterprises

As at July, 1969 the Government had invested a total of N₵38.30 million in 14 joint manufacturing ventures. This was made up of N₵27.56 million in equity investment and N₵10.73 million in loans. The value of

accrued cash dividends has been rather small and is only 19 per cent of total profits. There has been no Government directive to its Board representatives on the distribution of profits between dividends and reserves. The Government will formulate a policy on this in 1970–71. In general although the results of these ventures are not by any means spectacular, they certainly are profitable concerns. However, the performance of the ventures have been rather uneven. Out of total profits of N¢6.3 million, N¢5.0 million, or approximately 80 per cent, was contributed by only two companies. The joint enterprises have in the past been run with the Government as a dormant partner in the sense that full managerial responsibility was vested in the firms participating with the government in the venture. The whole system was reviewed in 1968 and recommendations are under consideration in the Ministry of Trade and Industries. The objective is to ensure a more effective participation of Government nominees represented on the Boards of these companies. The Government has started implementing these recommendations.

Although the management of these firms undertake some training of Ghanaians, this has so far been confined to the middle-level supervisory grades. With a few exceptions, the record at the top management level has been unimpressive and reliance on expatriate staff continues to be heavy. Whilst foreign investors must have the freedom to protect their investments, it would appear that in some cases foreign investors do not make any efforts to replace expatriates with Ghanaians even when there are qualified personnel. It is the intention of the Government that its representatives on the Board of these companies ensure that rapid Ghanaianisation at top management level is adequately provided for.

Measures will be adopted to ensure more effective protection of Government interests in these companies. A new reporting system is already being introduced. Government representation on the Boards is being reviewed and a uniform set of directives will be worked out to guide decision-making. In particular, it will be Government policy to ensure increased dividend payments as a return on the very substantial investments made in these enterprises.

National Investment Bank

The National Investment Bank (N.I.B.) started operations in 1963 with a share capital of N¢6.3 million, N¢5 million of which was contributed by the Ghana Government. Its authorised share capital is N¢20 million. The Bank is charged with financing, promoting and assisting in the establishment of enterprises in Ghana. This duty has been discharged through project loans, equity participation, advice and other technical assistance given by the Bank's Development Service Institute. Table 11-7 gives details of investments undertaken by the Bank for the period 1963–69.

TABLE 11–7

INVESTMENTS BY NATIONAL INVESTMENT BANK

(N₵ million)

	Industrial and Services	*Agricultural*	*Total*
A. Loans granted			
1963 to 1966	2.88	1.07	3.95
1967 to 1969	5.95	2.09	8.04
Total	8.83	3.16	11.99
B. Equity Investments			
1966 to 1969	2.04	0.11	2.15
Total investment	10.87	3.27	14.15
Percentage distribution	77.00	23.00	100.00

As can be seen, a preponderant proportion of these investments were in the field of industry and services, which accounted for 77 per cent of the total. The way these investments were financed is indicated in Table 11–8 below.

TABLE 11–8

SOURCES OF N.I.B. INVESTMENT FUNDS

(N₵'million)

	Local	*Foreign*	*Total*	*Percentage*
Share capital (paid up)	7.90	0.20	8.10	56
Loans	2.55	2.98	5.53	38
Accumulated Reserves	0.52	—	0.52	4
Total	10.97	3.18	14.15	100
Percentage distribution	78	22	100	—

Since the Government has ceased to invest directly in new enterprises, N.I.B. has become the only body through which the Government invests in industry. In 1969–70 the N.I.B. received a total of N₵1.7 in loans and equity. For 1970–71 the Bank will receive a total of N₵5 million made

up of an equity contribution of N¢1 million by the Government and a long-term loan. Only the N¢1 million in shares, is included in the budget estimates with the loan being included in the "below the line" items. The terms of the loan will be negotiated. The increase in the allocation to N.I.B. is intended to further support the Bank's emphasis on direct equity investments in projects (which have been increasing in importance since 1966) and to enable it to pursue the Government's policy of promoting Ghanaian business under the Ghanaian Business (Promotion) Act.

While the Bank operates primarily as a commercial concern, it does this within the general framework of the Government's economic objectives. Thus the Bank's activities are guided by the national need to save or earn foreign exchange, to generate employment, to create income and to utilise local resources. The Bank's operations in 1970/71 will be guided by these objectives and, in line with Government's desire to increase the pace of agricultural development, increasingly more attention will be paid to projects for the processing of agricultural commodities. This will be done in consultation with the Ministry of Agriculture, the Agricultural Development Bank and other interested agencies.

Applications totalling N¢13.63 million are now under consideration and as much as possible of this total will be financed during 1970/71. In addition, 13 projects, involving total investment of N¢45 million, are now at advanced stages of study.

The loans shown in Table 11–8 were contributed by domestic commercial banks and insurance companies, and a West German development bank, the Kreditanstalt Fur Wiederaufbau, which is contributing a further N¢2.9 million this year. The West German loan is on soft terms and the Bank will seek to attract more such foreign loans into the country. The amounts shown in tables 11–7 and 11–8 do not include counterpart investment financed by the clients themselves. This means that the Bank has been indirectly responsible for more investments than is shown.

The domestic commercial banks are increasingly responding to the idea of financing development projects. It is hoped that the Government's monetary measures described in Chapter 5 and policies for national savings mobilisation will stimulate the banks into making more credit available for investments. In addition to these sources of finance, the World Bank announced at a meeting in July, 1970 of the Consultative Group for Aid to Ghana that they would soon reveal plans for injecting some substantial amount of capital resources for investment through the N.I.B. It is to be hoped that N.I.B.'s project identification and preparation capacity will increase so as to absorb the increases in resources that might become available.

The Bank's own financial results continued to be satisfactory. It has been showing profits since the first year of operations, and plans to accumulate greater reserves. Total net profits for 1969 totalled N¢251,316 of which N¢90,000 was paid out in dividends to shareholders.

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Apart from its investments activities, the N.I.B. offers consulting services through its Development Service Institute. The services offered include evaluation of enterprises and feasibility studies for the Bank's own loan applicants and others. The bulk of the service goes to the latter group. For 1968 and 1969, an estimated 36,571 and 32,979 man-hours were spent on consulting clients, loan applicants and project appraisals. The Institute also undertakes training assignments for clients. The cost of such client service by the Institute is to a large extent subsidised by the Bank through its other earnings. The idea is to bring the service within the means of most Ghanaian businessmen.

Capital Investments Board

Details of investments approved with benefits under the Capital Investments Act are given below in Table 11–9. Data are based only on information contained in application forms submitted to the Capital Investments Board. No full post-investment studies have been carried out yet. For the Board has not as yet been adequately equipped in terms of organisation and staffing to handle its various activities. This serious handicap has adversely affected the Board's activities.

TABLE 11–9

INVESTMENTS APPROVED UNDER CAPITAL INVESTMENTS ACT

(N¢ million)

Year	*Number of Applications* (1)	*Total Investment Approved*				*Estimated Value of Investment Undertaken*			
		Total (2)	*Foreign Currency* (3)	*Local Currency* (4)	*Foreign as per cent of Total* (5)	*Total* (6)	*of which Foreign Currency* (7)	(6) *as per cent of* (2) (8)	*Foreign as per cent of Total* (9)
1964	7	10.99	4.32	6.67	39.0	4.77	3.43	43.4	71.9
1965	12	30.92	2.74	28.18	8.8	30.58	2.62	98.9	8.5
1966	12	14.80	0.52	14.28	3.5	8.52	0.30	57.5	3.5
1967	19	24.71	12.56	12.15	50.8	13.22	6.11	53.5	46.2
1968	17	38.42	17.16	21.26	44.6	35.46	15.09	92.3	42.5
1969	22	25.70	8.04	17.66	31.2	18.63	2.28	72.4	12.2
Total	89	145.54	45.34	100.20	31.1	111.18	29.83	76.4	26.2

Since 1964 a total of 89 applications were approved with benefits. The total value of planned investment approved was N₵145 million, of which about N₵111 million, or 76 per cent, could be said to have been realised if investments intentions were carried out as declared on the application forms. Of the total investments approved, N₵45 million, or about 31 per cent, was supposed to come in the form of foreign exchange. In fact, of the total projects implemented so far only about N₵30 million, or 27 per cent, of the investment estimated to have taken place constituted an inflow of foreign exchange, and the bulk of this inflow was concentrated in the two years 1967 and 1968.

A number of factors contributed to this rather disappointing result. It could be held that before the 1966 *coup* the policies of the Government were inconsistent with the intentions of the Capital Investment Act, and the reduced receipts in 1969 may be attributable to uncertainties created by the promulgation of the Ghanaian Enterprises Decree of December, 1968. This development was unfortunate since the coverage of the decree and the subsequent Ghanaian Business (Promotion) Act of 1970 does not come within the purview of the Capital Investment Act. The necessity since before the Act came into force to restrict the remittance of profits of foreign-owned firms, due to the foreign exchange problem, has also provided a strong disincentive to potential foreign investors. The extension of benefits under the Act to Ghanaian enterprises and to already established foreign firms has also had the effect of raising the proportion of local currency investments. To the extent that some of the local currency investments were made up of ploughed back profits of foreign firms which might have been repatriated in the absence of the Act and thus might have constituted a charge on foreign exchange earnings of the nation, the foreign currency element of the total investments made under the Act underestimates the foreign exchange benefits.

Whatever the reasons, the fact remains that the Act has not been successful in attracting large amounts of foreign capital. Indeed, it is doubtful whether the benefits accruing to the economy in the form of additional productive capacity, foreign exchange and employment that would not otherwise have been forthcoming, have been sufficient to outweigh the rather high costs in the form of tax revenues foregone. Steps will therefore be taken to streamline and rationalise the operation of the act so as to increase its effectiveness and the benefits accruing to the economy from the activities of the Board.

As regards the operations of the C.I.B. proper, it is clear that the Board has not operated as vigorously as might have been expected. In fact, quite apart from the lack of a clear-cut programme to promote investment, especially from domestic resources, the Centre has been seriously handicapped by (*a*) cumbersome bureaucratic procedures and (*b*) inadequate senior staff. The first is a result of the diffusion of powers between the Ministry of Trade and Industries, the Capital Investments Board under the Ministry of Finance and Economic Planning, the Bank of Ghana and the Ministry of Interior. It should have been possible to work smoothly under the system if there had been greater co-ordination

between the C.I.B. and the other Government agencies but investors continue to approach these bodies separately, with the result that it is possible for applicants to present different declarations on the same investment to the various agencies. It is also apparent that criteria used are not the same in all cases. Discussions are now going on to streamline the procedures and it is hoped that the results will become available in 1970/71. A major objective of any streamlining, it has been proposed, would be to centralise all contact between the investor and the Government in the Capital Investments Board.

The C.I.B. has been understaffed in two areas, (*a*) competent economists and (*b*) investments promotion personnel. This has probably led to an increase in the time lag between project applications and their approval. Difficulties have been experienced in formulating an adequate personnel policy and in securing the agreement of the Board on proposals submitted by the Secretariat on the issue within a reasonable span of time. It is intended that steps be taken to resolve these problems in the course of 1970/71.

For its investments promotion abroad a European Investment Centre was opened in Frankfurt, West Germany in 1969, the objective being to inform and interest European investors. It is believed that some progress is being achieved in this direction in Ghana. In the 1969/70 budget a vote was given for a similar office in New York. As is the case with the centre in Frankfurt, the New York one will also be used for export promotion.

At home, the effort of the Board has not made any significant impact yet since the promotion of domestic investment is a new direction of its activities. Achievements to date include (i) the establishment of a register of potential Ghanaian investors who want overseas partners for joint ventures; (ii) interesting Ghanaians in buying shares in existing companies, and (iii) educating the public about benefits and obligations under the Capital Investments Act.

It is proposed during 1970/71 to rationalise the administration of Capital Investments Act and to study the past activities of the Board, with a view to isolating its short-comings so as to facilitate institution of a more efficient programme of action to redress them. The recruitment of more senior staff, and the opening of the New York Investment Centre are all part of the programme to stimulate and encourage increased inflows of foreign resources.

On the home front, it is proposed to intensify efforts to increase overall investment. Although no comprehensive programme has been worked out yet, it is proposed to encourage Ghanaians to invest in industry and agriculture. This is to be done through the preparation of pre-feasibility studies, and the provision of essential information on investment opportunities in Ghana for the benefit of Ghanaian investors. The National Investment Centre's activities will be pursued within the framework of the industrial policy of the government, as outlined above.

National Standards Board

The National Standards Board set up in August, 1967 is charged with the establishment, promulgation and promotion of standardisation, public and industrial welfare, safety, health and efficiency in industry and commerce. A review of the Board's activities reveals that:

(i) 20 Standards have been published in the fields of building, electrical and organic materials and food;

(ii) 20 Standards are with the publishers; and

(iii) 50 Standards have been drafted and are awaiting final arrangements for publication.

The draft standards under (ii) and (iii) are mainly in the fields of food, textiles, and organic materials. The Board has thus fulfilled its targets for the *Two-year Plan* period.

So far the enforcement of standards has taken the form of random sample checks of products selected on inspection tours. The Board has also worked out a certification scheme which has received the approval of the Minister of Trade and Industries and is now to be introduced. The mark would be a certificate of proficiency and assurance of quality to be awarded to efficient manufacturers.

Below is a summary of expenditure by the Board, broken down into recurrent and development outlays:

	Actual Outlays 1967/68	*Outlays* 1968/69	*Estimate* 1969/70(*a*)	*Plan Estimate* 1970/71
Recurrent	7.2	52.8	101.6	123.0
Development	19.1	7.1	79.4	96.6
Total	26.3	59.9	181.0	132.6

Development expenditure has been mainly on the procurement of laboratory equipment.

Considerable attention will in future be devoted to enforcing the standards promulgated by the Board as provided for under existing legislation. In order to improve the quality of Ghana-made products the following procedures will now be enforced:

(i) For those products for which standards have been promulgated, producers will be issued licences by the Board and use of standard marks will be enforced.

(ii) Imported products will continue to be tested for compliance with the standards required.

(iii) New standards will be specified and promulgated.

(iv) Sample testing of products will be extended.

The Board's 1970/71 testing programme will include textiles, plastics, leather and rubber products. The equipment for the work is already on order. Finally, the revenue-earning potential of the Board will begin to be tapped. The sources will mainly consist of testing fees, licensing fees and sales of standards publications.

Provision has been made in the 1970/71 budget for the sum of N₵86,000 to be allocated for the purchase of equipment (N₵76,400) and the renovation of the premises of the Board (N₵9,600). The expectation during the budget hearings was that the Board would not be able to draw on sums voted in 1969–70 before the end of the financial year. The Board was, however able to make use of the money. As regards future equipment needs, some laboratory facilities exist in various Institutes which may be suitable for use by N.S.B. These include the universities, the Government Chemical Laboratory and various Institutes of the Council for Scientific and Industrial Research. The Possibilities for a sharing arrangement might therefore be investigated by the N.S.B.

One of the serious problems being faced by the N.S.B. is lack of suitable accommodation to house its equipment. The Board had plans for putting up its own premises. The temporary embargo on the construction of new building in Accra, however, resulted in the plans not being approved. Furthermore it was thought that the building proposed by the N.S.B. and estimated to cost more than N₵700,000 was too expensive. It would be necessary for the Board to modify its building plans to facilitate the taking of a decision in 1970/71. Meanwhile the allocation of N₵9,600 has been made to enable improvements on the temporary premises of the Board to be made in the 1970–71 budget as the need arises.

State Hotels Corporation

The Corporation is responsible for six hotels (including the Airport Hotel which offers only catering services) and five Catering Resthouses. The oldest of the Hotels, the Ambassador, started operating in 1956 whilst the newest, the Continental, commenced in November, 1967. The operating results of the hotels give cause for concern because they remain dependent on budgetary support, even for minor capital expenditure items such as the purchase of air-conditioners. The reasons for the poor performance would seem to be largely lack of effective management which is reflected in inadequate financial and personnel control, and overstaffing. In addition, the Corporation faces a serious liquidity problem resulting from its debt position.

Table 11-10 summarises the profit and loss accounts for 1968 and 1969.

TABLE 11-10

SUMMARY OF PROFIT AND LOSS ACCOUNTS
STATE HOTELS CORPORATION(a)

(N¢'000)

	1968			1969		
	Hotels	*Rest-houses*	*Total*	*Hotels*	*Rest-houses*	*Total*
Operating profit (Loss)	85.0	4.5	89.5	659.1	(26.0)	633.1
Depreciation	552.8	9.5	562.3	474.9	10.7	485.6
Income Tax	26.1	2.1	28.2	30.1	2.3	32.4
Net profit (Loss)	(493.9)	(7.1)	(501.0)	154.1	(39.0)	115.1

(a) Figures for 1968 are taken from audited accounts, 1969 figures are provisional. Totals may not add up because of rounding.

As can be seen from the data, the hotels made a profit on operations (before depreciation and income tax) in both years whereas the catering rest-houses moved from a small operating surplus in 1968 to a deficit in 1969. Overall, the situation is one of large accumulated losses; even after excluding losses made by the Ambassador Hotel prior to 1967, there was an accumulated loss (after depreciation and tax) at the end of 1969 estimated at almost N¢2 million.

Past losses have been financed largely by credits. At the end of 1968 the excess of current liabilities over current assets was N¢676,000. The situation did not improve in 1969. It must be pointed out, however, that the financial position has been worsened by the large debts owed to the Corporation by Government and quasi-Government agencies. These debts total almost N¢500,000. It is encouraging to note, however, that the hotel's operating profits increased more than seven-fold in 1969 and the expectation is that profits in 1970 will be maintained at about the 1969 level. This performance is an improvement on the Hotels' previous record. On the other hand, the catering rest-houses registered a deterioration in 1969. It must be pointed out that the profits realised on the corporation's activities in 1969 are entirely attributable to the good performance of the Ambassador and Continental Hotels, which made gross profits of N¢244,000 and N¢404,000, and net profits of N¢77,000 and N¢259,000 respectively. Of the other hotels, none made net profits and only two, the Star and City Hotels, made operating profits.

It is the policy of the State Hotels Corporation to maintain the profitability of the Ambassador and Continental hotels, and to seek ways and means of improving the performance of the others. Forecasts for 1970 show that the overall 1969 profit level may be maintained. Examination of detailed accounts and discussions with management suggest that

a closer look needs to be taken at administrative expenses, especially salaries and wages. Additionally, more income can be earned by improving conditions of service at the hotels. Seven experts in the hotel business (a general manager, an accountant, a cost controller, one engineer and three chefs) have been engaged to help with general re-organisation and to improve financial performance. A start has also been made at the catering rest-houses by the appointment of new managers. The programmes envisaged include:

(i) institution of new and better reporting systems;
(ii) training of staff;
(iii) reduction of redundant staff;
(iv) rehabilitation and improvement in hotels and rest houses;
(v) mounting of a sales drive for more customers, foreign and domestic.

It is worth mentioning that the commercial banks have come together to put up a loan for rehabilitating the Ambassador and Continental hotels. The management is to work to improve results at the other hotels so as to make them bankable.

Finally the management agrees that efforts should now be concentrated on achieving efficiency in the running of the existing hotels. With the exception of the Hotel Meridian which will be opened during the plan year and the construction of a motel at Aflao which may also be undertaken, there will for the time being be no new hotels or major extensions. After 1970/71 no further funds will be allocated to the State Hotels Corporation from the budget. All financing will then be arranged by the Corporation and, where necessary, the Government will give its support in raising finance.

12. MINING

Under the influence of declining ore reserves and other adverse circumstances, the mining sector's contribution to production and exports has tended to stagnate in recent years and the increases in output envisaged for 1968 and 1969 in the *Two-year Plan* failed to materialise, as can be observed from Table 12–1.

TABLE 12–1

TRENDS AND FORECASTS OF MINERAL PRODUCTION AND EXPORTS, 1967–71

				Forecasts	
	1967(a)	**1968**	**1969**	**1970**	**1971**
GOLD					
Output (000 fine ounces)	762.6	729.6	709.5	720.0	766.0
of which					
Ashanti Goldfields	496.0	480.4	492.1	500.0	526.0
State Goldmines	266.6	249.2	217.4	220.0	240.0
Exports (N₵mn.)	25.0	29.0	25.7	25.6	27.2
DIAMONDS					
Output (000 carats)	2537.5	2448.1	2390.9	2460.0	2460.0
Exports (N₵mn.)	15.1	17.4	13.9	14.0	14.0
MANGANESE					
Output (000 tons)	490.5	406.8	346.0	286.0	270.0
Exports (N₵mn.)	11.2	10.5	7.0	5.8	5.6
BAUXITE					
Output (000 tons)	345.4	280.2	265.2	300.0	340.0
Exports (N₵ mn.)(b)	1.9	1.5	1.4	1.8	2.1

(a) Exports in this year have been converted to post-devaluation cedis.
(b) Ore only.

In 1969 the four industries detailed in the table are estimated to have had an aggregate value added of almost N₵45 million, equivalent to approximately 2.1 per cent of G.D.P. In the same year they contributed about 15 per cent of the country's total f.o.b. exports and the modern mines employed about 23,000 workers, or approximately 6 per cent of total recorded employment in establishments employing more than ten persons. The record and problems of each of these industries are discussed below.

Gold

In recent years a rising share of the total output of gold in the country has been produced by the Ashanti Goldfields Corporation,

which accounted for about 70 per cent of the total in 1969, and a diminishing proportion from the mines of the State Gold Mining Corporation (S.G.M.C.), with output from Ashanti fluctuating around 490,000 ounces a year and with a declining trend from the State Gold Mining Corporation. For most of the nineteen-sixties the industry was under considerable financial pressure, with rising costs of production in Ghana and with an artificially determined world price of gold that had remained unchanged at $35 per fine once since 1934.

Towards the end of the decade two events occurred which reduced the pressure on profit margins. The first of these was the devaluation of the external value of the cedi in July, 1967 which had the effect of raising the local currency value of export sales by about 43 per cent. The second development was the creation of separate world markets for governmental and private gold buyers. For some time in 1969 the 'free' (private market) world price of gold was substantially higher than the "official" price of $35 and this had a further beneficial effect on profit margins. The "free" price has since fallen back, however, to levels only a little higher than the official price.

It might, nevertheless, have been expected that the industry would have responded more positively to the incentives created by the higher world price and, especially, by the devaluation. Unfortunately, there were in the case of both producers specific reasons for the lack of response.

In the case of the *Ashanti Goldfields Corporation* there was at the time of the devaluation uncertainty about the renewal of their mining lease, for which negotiations had reached only a preliminary stage. The position was further obscured by the take-over of the Corporation by Lonrho Limited in the second half of 1968. It was not until the second half of 1969 that an agreement between Ashanti Goldfields and the Government of Ghana was finalised. However, under this agreement the Corporation is committed to use its best endeavours to increase the milling capacity of the mine from 45,000 tons per month to at least 80,000 tons per month. It will take time for the necessary investments to be completed and for the higher level of extraction to be achieved but it is to be observed from Table 12-1 that some increases in output are expected in 1970 and 1971. Capital investments totalling N₵4,410,000 are expected to be made by the Corporation in 1970 and 1971 and about 400 additional workers are expected to be employed.

Other significant features of the agreement include:—

(*a*) A Government shareholding equal to 20 per cent of the Corporation's total shares, with an option to acquire a further 20 per cent;

(*b*) Government representation on the Board of Directors;

(*c*) An increase in occupational rent from N₵488 to N₵30,000 per annum;

(*d*) Lump-sum compensation of N₵100,000 to the Adansi Traditional Authority for damage to crops.

Through its representation on the Board, the Government will continue to ensure that the Corporation, besides satisfying the legitimate aspirations of the majority of share-holders, is operated in Ghana's national interest.

The circumstances of the *State Gold Mining Corporation* are radically different from those of Ashanti. The S.G.M.C. is currently undertaking mining operations at Tarkwa, Prestea, Konongo and Dunkwa and also has responsibility for a mine at Bibiani, which ceased mining in 1968. The record of the Corporation in the last two fiscal years gives cause for concern. The Corporation has been generally unable to meet its own self-imposed targets of production and development, as is indicated in Table 12-2 which compares the planned and actual results for the mines operated by the Corporation. From this it will be seen that the achieved or estimated result was in almost all cases well below target in both years.

TABLE 12-2

PLANNED AND ACTUAL RESULTS AT S.G.M.C. MINES

	1968/69			1969/70			1970/71
	Target (1)	*Actual* (a) (2)	(2) *as* % *of* (1) (3)	*Target* (4)	*Actual* (b) (5)	(5) *as* % *of*(4) (6)	*Target* (7)
TARKWA MINE							
Tons milled (000s)	600.0	313.6	52	420.0	329.4	78	380.0
Grade (dwt. per ton)	3.50	3.22	92	3.80	3.05	80	3.20
Gold recovery (000 oz.)	105.0	49.4	47	79.8	50.3	63	60.8
Development (000 ft.)	54.0	25.0	46	42.0	28.2	67	42.0
PRESTEA MINE							
Tons milled (000s)	480.0	380.2	79	450.0	350.6	78	385.0
Grade (dwt. per ton)	6.00	6.00	100	5.80	5.63	97	5.60
Gold recovery (000 oz.)	144.0	104.4	73	130.0	98.7	76	107.8
Development (000 ft.)	24.0	15.9	66	20.0	14.8	74	20.0

Notes:—

(a) Figures in this column refer to the 1968 calendar year in the case of Konongo and Dunkwa.

(b) Estimate based on first nine months.

TABLE 12–2—*contd.*

	1968/69			1969/70		1970/71	
	Target (1)	*Actual* (2)	(2) *as of* (1) (3)	*Target* (4)	*Actual* (5)	(5) *as* % *of* (4) (6)	*Target* (7)
KONONGO MINE							
Tons milled (000s) ..	—	38.3	—	60.0	47.2	79	50.0
Grade (dwt. per oz.)	—	9.75	—	9.00	7.57	84	9.00
Gold recovery (000 ozs.) ..	—	18.7	—	27.0	17.9	66	22.5
Development (000 ft.) ..	—	9.4	—	10.8	4.8	44	6.0
DUNKWA GOLDFIELDS							
Cubic yards treated (mn) ..	—	8.86	—	10.0	9.18	92	7.00
Grade (grains per cubic yard) ..	—	2.60	—	2.30	2.47	107	2.30
Gold recovery (000 oz.) ..	—	48.0	—	48.0	47.2	98	39.0

One consequence has been a fall in total output. Production trends are shown below for all the mines currently operated by the Corporation. and separately for all mines except Bibiani, which went out of production during 1968.

TABLE 12-3

PRODUCTION TRENDS IN S.G.M.C MINES(*)

	All Mines (000 *ounces*)	*Index* (1961 = 100)	*All Mines excluding Bibiani* (000 *ounces*)	*Index* (1961 = 100)
1961	432.7	100	364.3	100
1965	350.9	81	298.0	81
1966	231.0	53	212.5	58
1967	266.6	62	249.9	68
1968	249.2	57	239.7	65
1969	217.4	50	217.4	59

(*) The Konongo mine resumed production under S.G.M.C. ownership in mid-1966. For purposes of comparison the output of this mine has been included throughout.

Quite apart from the inevitable losses of output due to the mining-out and closure of the Bibiani mine, it is apparent from the third and fourth columns that there has been a general downward trend in output in the other mines taken together. This has been especially serious at Prestea which was formerly one of the most productive and profitable of the Corporation's mines. So far from responding to the 1967 devaluation by expanding output, production has, for reasons that will be described shortly, continued to decline.

Another feature of the Corporation's recent history has been its increasing dependence on Government subsidies. The following are the amounts that were approved in the recurrent and development estimates for the last two years.

TABLE 12-4

SUMS VOTED FROM GOVERNMENT BUDGET TO S.G.M.C.

(N₵'000)

	1968/69	1969/70
Current subvention	500	700
Development expenditures	1,900	3,346
Total	2,400	4,046

It will be seen that the provision in the budget nearly doubled between 1968/69 and 1969/70. Even so, it appears that the current subventions in 1968/69 and 1969/70 were insufficient to meet the actual operating losses of the Corporation, which are estimated at N₵1,057,000 and N₵2,109,000 respectively.* This last figure should be compared with an operating *profit* of N₵500,000 that was anticipated at the time of the preparation of the 1969/70 budget. At present only Prestea is covering its operating costs. The position at Tarkwa is particularly disturbing where in 1969 total costs per ounce of gold produced were about three times the realised value of the gold.

A wide variety of factors has contributed to the deficiencies noted above, not all of them being within the control of the Corporation. Above all, it must be remembered that these mines were acquired by the Government because their former owners regarded them as being no longer profitable. It could have been predicted, therefore, that the Corporation would experience great difficulties in sustaining the output and profitability of the mines. However, this consideration does not explain more than a part of the very sharp deterioration of the last few years.

*Operating losses exclude development, prospecting and capital expenditure.

One major cause of the Corporation's difficulties has been the generally very low levels of proven ore-reserves. This has made it impossible to plan mine operations properly, disrupted the flow of production and led to the extraction of poorer quality ore-bodies than otherwise would have been necessary. In consequence, the recovery grade has deteriorated at both Tarkwa and Prestea. One of the most encouraging features of the Corporation's recent efforts has been an increase in prospecting and ore development work and corresponding improvements in the ore reserve position. Especially note-worthy has been the achievement in raising the reserves of the Konongo mine from practically zero in 1965 to a level equivalent to nearly six years operation at the end of 1969.

In addition to small ore reserves, rising labour costs and low productivity have tended to put up the Corporation's operating costs. During the last five years average earnings per man have increased at a rate of about 7 per cent a year and productivity per man has fallen at about 8 per cent a year. In consequence, labour costs alone are equivalent to over 70 per cent of the world value of the gold produced. A further wage increase of about 6.5 per cent was recently announced but the opposite trends in past earnings and productivity emphasise the need in future to relate wage increases more closely to achieved output per man. More generally, there is an urgent need to sustain the improvements in industrial relations and labour discipline that have been achieved recently, for absenteeism, strikes and low physical efforts at work have contributed seriously to the declines in productivity, aggravated by the low levels of ore reserves already mentioned and by a declining volume of output unmatched by corresponding reductions in the labour force.

Another aspect of the labour situation that gives cause for concern is a serious erosion of senior personnel, especially in technical occupations, on a scale such as to undermine the efficient operation of the Corporation's mines. A principal cause of loss of staff has been the inability of the Corporation to offer salaries that bear reasonable comparison with those that are offered by other mining concerns in Ghana or internationally.

There have also been technical problems, themselves contributing to the decline in productivity mentioned in the previous paragraph. At Tarkwa, for example, the centres of production have over the years been moving steadily northwards from the main A.V.S. shaft, involving increased haulage and travelling distances and greater ventilation problems. At Prestea, operations are conducted at ever-increasing depths involving higher rock temperatures, whilst the ore shoots have tended to be less continuous, shorter in strike length and narrow in width.

A final problem that may be mentioned is the difficulty that is encountered in freighting ore mined at Konongo for milling at Tarkwa. There is an agreement with Ghana Railways for the shipment of 5,000 tons of ore per month but this volume has not proved to be feasible and

plans for 1970/71 are based on a movement of 4,000 tons per month. This failure on the part of the railways is expensive to the Corporation, not the least because Konongo's is a relatively high-grade ore (see Table 12–2).

The cost to the Government of supporting the S.G.M.C. must bear some relation to the benefits derived therefrom by the economy by way of value-added, employment and foreign exchange. The scale on which the Government is currently requested to assist the Corporation raises serious doubts about whether these expenditures can be justified by reasonable expectations about the results that will be obtained. This is particularly true of the Tarkwa mine, which accounts for much of the current subvention required in 1970/71 and for two-thirds of development expenditure. If the Corporation is to be able to make a more positive contribution to the development of Ghana's economy a sharp break will be needed with the adverse trends of the recent past. A thorough-going review of the performance and prospects of the Corporation and of Government policies in respect of the state-owned mines will be undertaken jointly by the Corporation, the Ministry of Lands and Mineral Resources and the Ministry of Finance and Economic Planning during 1970/71. A committee has already been set up to examine the rates of remuneration for senior personnel.

Pending the outcome of the policy review, the Government's policy will be in accordance with the following principles:—

(*a*) The Corporation must be operated on commercial lines and all aspects of its operations will be adjusted to bring them eventually onto a commercial footing. The objective is to make the Corporation financially self-sufficient, although it is recognised that this objective cannot be achieved in the course of a single year. The first priority is to eventually eliminate Government subsidies for current operations.

(*b*) For objective (*a*) to be feasible, to raise productivity and to make a more favourable contribution to Ghana's economy, output must be increased over a period of years, especially at Prestea and Konongo.

(*c*) If output is to be increased it will be essential to continue to increase the rate of ore development and of prospecting, with the Tarkwa mine as first priority. For this to be achieved, however, it will be essential to recruit more geologists and related workers or to contract the work out. It is the intention during 1970 to undertake a complete revision of the ore reserve position.

(*d*) To improve industrial relations and labour discipline at the mines and to relate the growth of earnings more closely to observed improvements in productivity. The Corporation is in addition taking measures to ensure that security checks in its mines are adequate to afford maximum protection against theft.

(*e*) To ensure that the Corporation continues to have access to sufficient foreign exchange for its efficient operation.

The provision in the 1970/71 development budget is summarised in Table 12–5. In line with the policy principles outlined above, provision has been made considerably in excess of estimated 1969/70 expenditures on prospecting, with the main emphasis on Tarkwa and Konongo. The total target output during 1970/71 is 230,000 fine ounces which would represent a small increase on estimated output in 1969/70 of 214,000 ounces. Further details of the targets for 1970/71 are to be found in Table 12–2.

TABLE 12–5

SUMMARY OF TOTAL DEVELOPMENT BUDGET ESTIMATES AND BY MINE

(N₵'000)

	1969/70 *Original Estimate*	1969/70 *Revised Estimate*	PROPOSED 1970/71 EXPENDITURE			
			Total	*Tarkwa*	*Prestea*	*Konongo*
Normal Development	2,327.6	1,578.0	912.0	588.0	240.0	84.0
Special Development	432.0	357.5	348.5	300.0	48.5	—
Prospecting ..	169.0	80.0	704.8	450.5	75.3	179.0
Capital expenditures	1,003.0	750.0	477.2	411.8	18.4	47.0
Total ..	3,931.6(a)	2,765.5	2,442.5	1,750.3	382.2	310.0

(a) Includes N₵585,700 for financing by S.G.M.C. and from other sources.

At *Tarkwa* large increases in achieved extraction rates and development footage are planned as essential steps in the restoration of efficiency to the mine. In the category of special development, work on the Ferguson shaft, which proceeded well in 1969/70, will be continued and is expected to be below the No. 20 level by June, 1971. It is planned to greatly expand prospecting work at Tarkwa to produce a total footage of 35,600 drilled at Sumang North. Allocation of moneys to this mine has been kept to the minimum consistent with improved efficiency at the mine. A scheme for workers' housing at Tarkwa and Prestea has been deferred until such time as the financial situation records real improvement.

Targets have been set for the *Prestea* mine which entail increases in achieved output and development footage. Prospecting results so far achieved have been very encouraging and work in 1970/71 is expected to confirm the existence of considerable reserves in the north ore-body.

The prospects for *Konongo* in 1970/71 are limited by the inability of Ghana Railways to freight an adequate quantity of ore for milling at Tarkwa. For planning purpose a target of ore shipments of 50,000 tons has been taken for 1970/71, i.e. about the forecast 1969/70 level, but it is hoped that the railways will be able to exceed this target. Ore development in 1969/70 fell badly behind schedule and a new target of 6,000 feet has been set to make good this deficiency.

An output of 39,000 ounces of gold is planned for the *Dunkwa* goldfield, which is below the expected out-turn for 1969/70. The No. 4 Dredge, which currently operates in the most profitable area, will reach a region of rock bars in September or October, 1970 and the No. 1 Dredge is no longer serviceable for production.

Prospecting and development work at *Bibiani*, which ceased production in 1968, has not yielded sufficiently good results to justify further work in 1970/71.

Diamonds

It can be seen from Table 12–1 that the volume of recorded diamond production has fallen in recent years. In 1968 there was a big increase in the value of diamond exports but this was due, in great part, to an N.L.C. order that no diamond mining company should stock its winnings of diamonds for more than one month. The Consolidated African Selected Trust (C.A.S.T.) therefore offered for export almost all the stocks it held. The 1969 export volume was therefore considerably below that of 1968.

So far as recorded diamond production is concerned, the Consolidated African Selected Trust (C.A.S.T.) mine is overwhelmingly the most important source, as is illustrated by the following breakdown of production in 1968 and 1969.

TABLE 12–6

DIAMOND PRODUCTION 1968 AND 1969

(carats)

	1968	1969
C.A.S.T.	2,381,219	2,328,144
Other companies	50,766	55,412
African diggers	16,254	7,312
Total	2,448,149	2,390,867

There have in the past been frequent disputes between C.A.S.T. and the Diamond Marketing Corporation about diamond prices and it was hoped that new marketing arrangements introduced in 1968 would lead to increased production by C.A.S.T.

The declared production of the *African diggers* fell in 1969 to 7,312 carats from a 1968 figure of 16,254, and for the first four months of 1970 only about 1,300 carats had been sold by the African diggers to the Diamond Marketing Corporation. They, like the other diamond producers, complain about the price paid to them by the Corporation. In 1969 the diggers obtained about N¢3.40 to N¢4.20 for a carat of diamond sold to the Corporation. According to the Corporation, the diamonds sold to them by the African diggers are of inferior quality and the Corporation gets an average of N¢5.20 per carat for better quality diamonds. This year, the Corporation has paid for the type of diamonds supplied by the African diggers an average of N¢3.70 per carat which is just about what the Corporation has received on the world market for that type of diamonds.

It is known that the African diggers smuggle out a considerable part of their diamond winnings not only because of price differences which may exist between Ghana and the neighbouring countries but because diamond smuggling is used as a means of transferring money out of the country. To the extent that this is a major cause of diamond smuggling, it is difficult to envisage any feasible price increase which would effectively check the smuggling. Traders are reported to be paying up to N¢15 per carat of diamonds. The problem is aggravated by the fact that some of the diamond winners operate on behalf of patrons who have direct control over whatever is produced irrespective of prices paid by other buyers. This situation is due, in great part, to the very heavy expenditures a prospective digger has to incur before he can operate. It has been estimated that as much as N¢550 has to be expended before a digger can start operations. Many of the diggers are not in a position to meet these expenditures and therefore come to rely upon traders and others.

In the *Two-year Plan* the hope was expressed that substantial increases in diamond production could be expected "if a satisfactory solution can be found to the marketing problem." The marketing problem stemmed from the procedures for buying diamonds operated by the Diamond Marketing Corporation. Early in 1968 a small Committee was appointed to examine the procedures for the buying and selling of diamonds by the Corporation. The report of the Committee stated, *inter alia*, that:—

> "The procedure whereby the Diamond Marketing Corporation operates as the sole buyer of diamonds won or produced in the country is largely responsible for the unhappy atmosphere in the industry. There seems to be a major grievance shared by all the diamond producers that they do not receive the correct market value for the diamonds sold to the Corporation. This stems from the fact that in selling a commodity whose price is not fixed by reference to any standard grade or definite description, the producers can satisfy themselves that they have the best bargain only if they have the freedom to haggle with as many buyers as possible."

C.A.S.T. and the Diamond Marketing Corporation were invited to submit joint proposals for the marketing of diamonds. As an outcome of these and the Committee's report new arrangements were announced in December, 1968 for the sale of all diamonds won or produced in Ghana. It was decided that for a trial period of six months five alternative methods of sales should be tried. During this trial period the Corporation was expected to evaluate the workings of the various methods and their relative advantages in securing for Ghana the maximum foreign exchange earnings for her diamonds. At the end of the initial six months, a further trial period was instituted and it apeears that the new arrangements have proved satisfactory both to the Diamond Marketing Corporation and C.A.S.T. Apart from minor modifications, therefore, it can be expected that the marketing arrangements introduced in December, 1968 will be continued throughout 1970/71.

Manganese

The decline in output of manganese that has occurred in the last three years can be expected to continue in 1970 and 1971 (see Table 12.1). This is due to the fact that known deposits of high-grade oxide ore at the Nsuta mine of the African Manganese Company are nearing exhaustion. There remain substantial deposits of low-grade carbonate ore which could be mined for some years ahead so long as the price obtainable would justify continuing production. However, exports of carbonate are unlikely to compensate in value terms for the decline in oxide revenues.

Bauxite

At present only a small fraction of Ghana's bauxite potential is being mined and it can be observed from Table 12.1 that output has in recent years tended to decline. However, the British Aluminium Company has, in addition to its long-established mine at Awaso, recently opened a mine nearby at Ichiniso. It will not be until 1973 that this can reach its full production capacity of 500,000 tons but output is expected to increase substantially in 1970 and 1971. However, this will depend upon the ability of Ghana Railways to freight the ore to Takoradi; it is this that has been the constraining factor in the recent past rather than the output capacity of the existing mines.

The deposits currently being mined by the British Aluminium Company are very small in relation to the total known availability of bauxite ore in the country. There is a deposit in the Kibi Hills estimated to contain some 100 million tons of ore, with an average quality of about 45 per cent bauxite, 2.95 per cent silica. An even larger deposit exists at Aya-Yenahin, roughly estimated to contain 200 million tons, 50 per cent bauxite and 3.1 per cent silica. It is the policy of the Government to bring these deposits into use as quickly as possible.

As an earnest of the importance the Government attaches to this it has been decided to create an Aluminium Industry Planning Unit within the Ministry of Finance and Economic Planning, charged with the planning and promotion of the further development of a bauxite-based industry in Ghana. With large deposits of bauxite, an aluminium

smelter based on low-cost power from the Akosombo dam and ready access to Europe, Ghana offers the prospect of a highly competitive fully integrated aluminium industry and the Government is committed to the promotion of such an industry. The task of the Planning Unit will be to investigate the advantages to Ghana of alternative schemes for the development of such an industry and to undertake the promotional work with potential investors. A number of overseas concerns have already expressed interest. The World Bank has agreed to help with the provision of technical advice to the Unit.

Since the latter half of 1969/70 the Geological Survey Department has been carrying out a re-assessment programme on the Aya-Yenahin deposit. This work will be stepped up in 1970/71 and will involve (*a*) the construction of a 10-mile road, for which a contract has already been awarded, (*b*) line-cutting and topographic surveying over an area of 4 sq. miles, (*c*) drilling of 460 boreholes to a grid of 500 ft. x 500 ft., (*d*) chemical analysis of 10,000 core and sludge samples and (*e*) calculation of reserves over the drilled area. N₵244,380 has been voted for this in the 1970/71 development budget. The re-assessment work, when completed, will provide details of proved reserves over an area which was only roughly estimated in earlier evaluations. Given the planned development of the aluminium industry, an accurate estimation of available ore reserves is of very great importance.

Petroleum

The Government has entered into oil prospecting agreements with a number of international companies for the exploration of the country's petroleum potential. Most of these relate to areas offshore, which span the entire coast-line. The total area for which agreements have been signed is 11,639 square miles, of which approximately 10,000 are offshore. The prospecting agreements contain safeguards against the possibility that companies may fail to explore the areas allotted to them and in all cases geophysical investigations have already been completed. Drilling has commenced and indications are favourable but it is still too early to assess the possibilities of finding petroleum in economic quantities. Meanwhile, the equivalent of approximately N₵300,000 is payable by the companies to the Government annually in foreign exchange as rent for the concessions allocated; the other local costs of their exploration activities will also represent a useful flow of capital and foreign exchange into the economy. There remains an area of some 40,000 square miles in the north-east of Ghana which also has oil-bearing potential and the Government will seek to conclude prospecting agreements, on terms which adequately safeguard the national interest, for the exploration of this area.

It has been decided to create in 1970/71 a special division of the Ministry of Lands and Mineral Resources to deal exclusively with matters concerning petroleum and natural gas, against the possibility that Ghana will be found to possess these in economic quantities. A nucleus of this division already exists in the Petroleum Division of the Ghana Supply Commission, set up to safeguard the Government's interest in the

GHAIP oil refinery at Tema. One of its first tasks will be to commence investigation into the form of any production agreement which would best serve Ghana's interests and what negotiating position the Government should therefore take up. In this connection a study of the more progressive production agreements, such as those in operation in Indonesia, will be worthy of careful examination.

13. TRANSPORT

Introduction

The *Two-year Plan* aimed at a major rehabilitation of the transport system. This was to be effected by means of stepping up and re-organising road maintenance work, relieving bottleneck in the railway system, accelerating the reconstruction of feeder roads, and adopting a liberal import policy for motor vehicle spare parts. While the general situation of the transportation system continues to be less than satisfactory some significant improvements were achieved in the *Two-year Plan* period.

Definite progress has been made, for example, with regard to maintenance and rehabilitation of the roads system, especially on highway maintenance, and development and reconstruction of feeder roads has progressed. On the other hand, while the import policy for spare parts has been liberalised, the new registration of commercial vehicles has been smaller than the estimated amount required to prevent a further increase in the average age of the vehicle fleet. Appropriate measures will be taken during the 1970/71 fiscal year in the administration of import licences of motor vehicles to ameliorate this situation.

The performance of the Railways during the past two financial years has been far from satisfactory. Despite the delivery of new rolling stock, the total originating traffic carried has declined and has been substantially below the level of demand. At the same time, costs have increased with the result that a large operating deficit has been accumulated. Port operations have also left a lot to be desired, particularly at Takoradi where considerable congestion and slow handling of timber was evident in the first half of 1970.

The planning of the transport sector still continues to suffer from lack of co-ordination among the many Government agencies and departments dealing with this matter. A Transport Planning Unit will be set up during 1970/71. The responsibilities of this Unit will include the overall planning of the expansion of all modes of transportation in a co-ordinated manner. It will also evaluate all investment proposals according to set economic criteria and vet development budget proposals of all Government agencies dealing with transport matters before their presentation to the Ministry of Finance for approval. The study of all policy measures affecting the industry, such as traffic regulation, vehicles import policy, goods and passenger fares and taxation policies will also come under the Unit's jurisdiction. In order to lay the groundwork for a coordinated transport policy the Government commissioned consultants to study the transport sector and make recommendations. Draft report of the consultants has been submitted and is under consideration by the Government.

The road transport industry

During the last two years, road transport activity expanded in line with the increase of general economic activity in the country. Some improvement in the performance and efficiency of the industry was facilitated by the liberalisation of imports of vehicle spare parts and by the

expanded roads maintenance programme. These two factors have contributed to the improved utilisation of existing motor vehicles and helped to reduce operating costs. However, other policies relating to the granting of import licences for motor vehicles have resulted in a rapid increase in the registration of passenger cars compared with commercial and goods vehicles, as shown by Table 13–1. The slow rate of growth of registration, might have led to an increase in the average age of the fleet of commercial vehicles. This is an undesirable development which might probably have had an offsetting effect on the benefits derived from better road conditions and greater availability of spare parts. Furthermore, as it results in limiting the degree of competition within the industry, it contributes to transport charges being kept at higher level than would otherwise apply.

TABLE 13–1

MOTOR REGISTRATION BY CLASS OF VEHICLES

	Total(1)	*Cars*	*Goods and passenger vehicles*	*Special purpose vehicles*
1966	5,554	2,943	1.828	610
1967	6,105	3,216	2,140	639
1968	6,966	3,620	2,337	729
1969	8,874	5,239	2,570	828

(1) Excludes motor cycles, trailers, caravans and public vehicles, but includes tractors and mechanised equipment.

The State Transport Corporation

The State Transport Corporation (S.T.C.) is a public corporation set up to compete with private operators in the carriage of passengers and goods by road. Traffic and revenue data are available only through September 1969 and are far from complete. They show a decline of activity in 1968 compared with 1967 as far as passenger traffic is concerned, and a modest increase in the haulage and revenue from goods services. In the first three quarters of 1969 there were signs of recovery in the field of passenger traffic and indications are that the performance on goods haulage was better than in 1968. Overall, however, the financial performance of the Corporation has worsened over the last two years. There is some scope for expanding the activities of the Corporation. Better utilisation of equipment, improved financial controls and better performance on procurement of spare parts for example would result in an improvement of its financial position. In efforts to improve performance some attention should also be given to personnel problems.

In the face of its current problems, the management of the State Transport Corporation is planning a modest expansion over the next five years. In particular, it is planned to increase the bus fleet to serve a wider route network within Ghana, and to commence operations

between Ghana and neighbouring countries. It is the policy of the Government that the Corporation should expand its fleet only to the extent that this can be financed through the normal commercial channels without government guarantees. In pursuance of this policy no budgetary allocation has been made to S.T.C. for the financial year 1970/71.

The Omnibus Service Authority

The Omnibus Services Authority (O.S.A.) has been set up to provide public transportation facilities in urban areas. The network of facilities and the bus fleets of the municipal and local councils were transferred to this new body after 1966. The O.S.A. inherited from the previous owners a run-down fleet. Due to lack of spare parts and poor maintenance, little progress was made till December, 1968. At that time the position of the fleet of the Authority was as follows:—

Operational buses	130
Repairable buses	247
New buses on order	72
Total fleet	449

To enable the O.S.A. to rehabilitate their fleet of buses, a large portion of which could be put back on the road at considerable savings as compared to the cost of acquiring new ones, the Government guaranteed, in April, 1969, a N₵1.7 million loan extended to the O.S.A. by a private bank. Import licences were also granted to the O.S.A. to meet import requirements of its rehabilitation programme. The rehabilitation work was to be completed over a period of 15 months, by which time the Authority's fleet was expected to number 449 operational buses, including the delivery of new buses contracted for prior to 1969. This is judged to be an adequate number to meet all the requirements of public transport service in the main urban communities of the country.

Between May, 1969 and May, 1970, however, only 12 buses were repaired as against a target of 215. In addition, some of the buses which were operating in 1969 became unserviceable. As a result, despite the arrival of some new buses, the total operational fleet of the O.S.A. now numbers only 90 vehicles. This state of affairs is largely due to the failure to order spare parts in accordance with the rehabilitation schedule, and to make improvements in the maintenance work to a level needed to sustain operations.

The Government is aware of the great inconvenience caused to the public by the failure of O.S.A. to carry through the rehabilitation programme. The Government intends ensuring that the rehabilitation programme is pursued vigorously to a satisfactory completion and that the O.S.A.'s efficiency is improved to an acceptable standard. In the meantime the sum of N₵500,000 has been allocated for the fiscal year 1970/71 for the purchase of new buses.

It is the policy of the Government that O.S.A. concentrates its activity in the urban areas, which is their major responsibility, and leave inter-urban routes,—on which they presently run a fleet far in excess of what would be required to meet their statutory function,—to the private sector and the State Transport Corporation.

To improve the unsatisfactory financial condition of the O.S.A. thorough overhaul of traffic routes and a substantial replanning of routes and operational practices will be undertaken. Cost controls will also be improved. Technical assistance will be requested to strengthen the O.S.A. managerial staff on such matters as traffic management, accounting and maintenance supervision The O.S.A. will put into practice a management improvement programme without delay, making use of the technical assistance offered by several friendly countries for this purpose. In so doing, the O.S.A. will ensure that new Ghanaian engineers will be hired as understudies of the technical assistance personnel so that they will be able to take over the job quickly, when the major restructuring of the bus service is successfully completed.

The Railways

The *Two-year Plan* pointed out that the failure to improve railways operations could have serious consequences on the movement of export commodities. A rehabilitation programme was drawn up in 1968 calling for the installation of new signalling and telecommunication facilities, the purchase of new locomotives and the replacement of depleted rolling stock. During the two years the rehabilitation programme has been only partly implemented. In addition, steps have been taken to improve efficiency of operations and traffic management and control. The originating traffic handled by the Ghana Railways in 1968/69 was 1,524,000 tons—153,000 tons less than in the previous year and about half a million tons less than the estimated demand. More recent data on the performance of the Authority are not available but indications are that, although potential demand has not declined, the level of goods traffic was lower in 1969/70. This decline in goods carried was recorded in spite of a substantial increase in the motive power of the railways. Shortages of wagons, congestion at shunting yards due to the failure to dispose of obsolete rolling stock, inadequate traffic management, have been mainly responsible for the traffic loss. Chapter 12 records some of the consequences of this, in terms of export proceeds foregone.

The implementation of the railways rehabilitation programme approved by the Government in 1968/69 has lagged behind schedule. New orders for replacement of wagons have been delayed, and a contract to rehabilitate part of the old rolling stock has taken a long time to negotiate. Slow progress has been made on the implementation of a very urgent project designed to improve the signalling and telecommunications network which is essential for effective traffic control.

As a result of low efficiency, rising costs, and declining traffic, the railways incurred a large operating loss of N¢4.1 million during the first three-quarters of 1969/70. During the past ten years the railways

have accumulated large financial reserves, partly as a result of postponing replacement expenditures. These are presently estimated to total about N¢42 million and are being used now to finance replacement of rolling stock and other items, as well as the large current operating losses. In view of these deficiencies, drastic steps will be taken by the Government to strengthen the management of the railways, to avoid further deterioration of its financial position and to bring services back to the standard of efficiency which obtained some years ago.

The procedures connected with the incorporation of the Railways and Harbour Authority as a public corporation made some progress in 1969/70 but the process is yet to be completed. It is now clear that the setting up of a new Corporation ought to be accompanied by measures aimed at improving management efficiency, restoring labour productivity and retraining skilled manpower. This is an essential pre-requisite for the successful discharge of its responsibilities on a commercial basis.

During the Plan period, the railways will continue to carry on the rehabilitation programme which was approved in 1968–69. Three hundred and fifty tanker wagons have been ordered at a cost of N¢1.2 million. Rehabilitation work on the rolling stock will continue in this country at considerable savings in foreign exchange. Meanwhile, twenty new third-class coaches will be purchased as an interim measure. No other major investment is contemplated during the plan period.

The Ports

During 1969/70 port operations were relatively smooth at Tema. The financial position of Tema Harbour has been satisfactory on a cash basis, although its apparent profitability largely depends on the fact that the cost of the harbour has not been adequately capitalised so that the depreciation charges shown on the statements of accounts do not reflect the full cost of the fixed assets employed. Furthermore, revenue figures are somewhat inflated by large miscellaneous receipts from charges levied on goods in transit stores in sheds for period longer than the maximum permissible. An exceptional feature of the charges is that they have been levied at non penal rates due to slow customs clearing procedures.

Port operations stagnated at Takoradi in the latter part of 1969–70. An unusually large volume of logs accumulated in the storage area awaiting shipment. The revenue earnings of Takoradi were, however, better during the first three quarters of the 1969/70 financial year than forecast.

No major investment work is envisaged in the harbours for 1970/71. A proposal for the completion of dredging at the bulk terminal in Tema will be studied in detail during the plan year. Dredging the entrance of the newly established dry-dock facilities is to be undertaken on a priority basis as it is required to enable larger ships to be decked for service.

The naval base at Sekondi still remains largely unutilised, despite the need for sheltering the fleet of fishing vessels operating off the western coast of Ghana. A proposal for splitting the harbour facility between the Navy and the fishing industry was put before the Government in 1968 and is under consideration.

The Tema dry-dock

The dry-dock facilities at Tema came into operations in 1968/69 and serviced a number of vessels including a few Black Star Line ships. Operations have been severely handicapped by the lack of working capital and of a few additional items of equipment required to balance the plant. The dry-dock is a potential source of considerable foreign exchange earnings for the country as well as a source of employment in the Accra-Tema area. While the fact that it should be made fully operational as soon as possible has been recognised the question has been raised whether it can be run efficiently as a department within the public service. During the Plan period, sufficient funds will be made available to substantially larger scale. At the same time steps will be taken to review the feasibility of reorganising the dry-docking activity under a more independent structure. In this connexion consideration will be given to the possibility of foreign private enterprise participation in operating the facilities on a joint venture basis with the Government.

The Roads Programme

PROBLEMS AND POLICIES

In the *Two-year Plan* emphasis of public effort in the field of roads was laid on improving highway maintenance and on the construction of feeder roads. Significant progress has been achieved in these two fields, particularly during the 1969/70 fiscal year.

In view of the magnitude of the rehabilitation task the basic problems of the road network of Ghana as outlined in the *Two-year-Plan* continue to be pressing. It is now anticipated that the rehabilitation and improvement of the road network will take about three more years. The country's effort will therefore continue to concentrate on the rehabilitation and feeder road construction programmes. Road improvement and reconstruction work will only be undertaken when such activities are considered essential in terms of their economic returns and to the extent that public administration can cope with the additional demand. The *One-year-Plan* has been prepared with these considerations in mind. Nevertheless, the total cost of the programme is quite large compared with total available resources.

It is the policy of the Government to seek international assistance for the maintenance and rehabilitation of the national roads system. The IBRD has been approached for this purpose and it is expected negotiations to this effect will be undertaken during 1970/71. It is not realistic however, to expect that large IBRD resources will become available to the Government in 1970/71. Accordingly, some items of expenditure which will be eligible for IBRD financing (such as the reconstruction and strengthening of several bridges) have been postponed until 1971/72 when more external assistance is expected to become available.

The effectiveness with which the programmes for the highway system are carried out depends entirely on the capacity of the Public Works Department (P.W.D.) to implement them as well as supervise the work of contractors. The P.W.D.'s staffing strength in the field is therefore crucial for the success of the road programme. The Government recognises that before 1969/70 inadequate staffing and over-centralisation were major sources of P.W.D.'s ineffectiveness. Several steps have since then been taken which improved the situation. Firstly, a decentralisation programme was implemented. All regional offices have now been put under the supervision of well qualified senior professional engineers, and efforts are being made to staff all the district offices of P.W.D. with professional personnel of the required competence. Secondly a salary increase was granted which improved morale and halted the dangerous drift of engineering talent away from the public service, a situation which had been depleting P.W.D. staff at a fast rate. Thirdly, a recruitment programme was started abroad with a view to filling vacancies which could not be filled by Ghanaians. Fourthly, P.W.D. training courses were expanded. These efforts on the staffing side, combined with larger financial resources, were responsible for the progress made in the field of highway maintenance and feeder roads construction in 1969/70.

A major problem which still besets P.W.D. relates to the poor condition of the equipment available to the Department. This is due to a variety of factors: difficulties with release of funds allocated for plant maintenance, workshops replacement, inadequate equipment and poor staffing of maintenance workshops and a weak plant maintenance operation.

Some reduction in the cost of the re-equipment programme could be achieved through rehabilitating a good deal of the plant which is presently unserviceable. A contract for a similar purpose by S.C.C. in 1969 with a private company has been operating satisfactorily. A similar scheme could be profitably used by P.W.D. A complete survey of the plant to be rehabilitated will be conducted within the shortest possible time by P.W.D. with the help of consultants and interested contractors, with a view to undertaking as large a rehabilitation programme as will be economically justifiable.

During 1970/71 the road plant maintenance wing of P.W.D. will be reorganised and programme of preventive maintenance of equipment will be instituted. The possibility of contracting preventive maintenance work with private firms will also be considered.

It will be the policy of P.W.D. to contract out to private Ghanaian contractors as large a portion of road maintenance and rehabilitation work as is compatible with the need to ensure effective implementation at reasonable costs. This policy will have the advantage of reducing the immediate claim on budget resources for the purchase of plant as well as assist the development of the Ghanaian contractor industry which is a prime objective of the public works programme. It is the intention of the Government, however, that this policy be implemented without any adverse effects on the standards, speed and costs of projects financed with public funds.

Some success has been achieved during the last two years in promoting the participation of private Ghanaian contractors through the implementation of P.W.D. feeder roads programme. To this end, an adequate number of contractors were selected on the basis of their performance and technical capacity. The original number of contractors approved for the programme in 1967 was reduced to about 40 in 1969/70 in the light of the experience of the previous eighteen months, during which the performance of some of those originally selected was adjudged to be inadequate. While some firms have been dropped those producing the best results have been upgraded. It is proposed to continue this policy of upgrading more contractors whose performance turns out to be outstanding. The minimum size of contracts for feeder roads construction will be increased to reduce costs of operations. Consideration will be given to making it possible for the best Ghanaian firms to undertake jobs on trunk road maintenance and reconstruction work.

In order to avoid the possibility that contracts awarded to the State Construction Corporation might be at the expense of an expansion of private Ghanaian contractors' participation in the programme, a floor of N₵300,000 will be set to contracts awarded to S.C.C. for road works, unless there is evidence that there is no private firm available and willing to bid for the smaller contracts. With this in view all S.C.C. road contracts of less than N₵300,000 which have not been completed by the end of December, 1970 will be cancelled and awarded to private Ghanaian contracting firms.

Highway Maintenance: one of the main features of the 1969/70 budget was an increase of about 40 per cent in the appropriation for highway maintenance work. This measure was accompanied by the decentralisation of the process of fund release. Budget funds were released to the P.W.D. regional offices through the Regional organisations rather than through Central P.W.D. Headquarters. It is presently estimated that during the 1969/70 fiscal year N₵9,896,000 was spent from the total maintenance allocation of N₵10,396,000. The shortfall of expenditure is to a large extent due to delays in the release of funds to enable the P.W.D. Headquarters to order new equipment.

Following a review of the performance of P.W.D. regional offices in carrying out the maintenance programme, it was found that the physical performance needed some improvement. There had been a failure in preparation of 1969/70 budget to estimate the cost of some maintenance work in accordance with approved Government rates. These shortcomings have been corrected and the maintenance budget for 1970/71 has accordingly been increased to N₵11,526,000—about 10 per cent more than appropriated in the previous financial year. The 1970/71 appropriation covers several items of rehabilitation and improvement but still falls short of what would be required to finance the technically optimal and economically justifiable maintenance work cycle in the Ghanaian conditions. In view of limitations of total budget resources combined with the fact that staffing programme of P.W.D. is not yet completed at the district level, it was decided that the present appropriation should not be exceeded.

An allocation of N₵200,000 has been made in the 1970/71 budget to cover the cost of feasibility studies, including the design of the road rehabilitation and improvement programme which is expected to be financed by the IBRD in the following year.

Highway Construction.—During 1969/70 there were 21 highway projects under way in several areas of the country. Most of these were minor contracts relating to finishing jobs on roads largely completed prior to 1966 or to winding up suspended projects.

The major on-going projects in 1969–70 were: the Ho–Denu road, the first phase of the Kumasi–Bibiani improvement project, the re-alignment of the Nsawam–Bunso road and the Dabala–Srogbe road. While limited progress was achieved during the first half of the financial year, significant improvement was realised in the second half. The Nsawam–Bunso road has been progressing rapidly since the beginning of the project, while progress on the Dabala–Srogbe road has been lagging.

Only a few of the small projects under way in 1969/70 were completed. Slow performance by the S.C.C. was responsible for delayed completion of a few contracts on the Kumasi–Kintampo highway and on the paving of one carriageway of the second phase of the Accra–Tema motorway. No physical progress was reported on the Poasi–Sekondi road or on the Berekum–Dormaa–Ahenkro road. As a result total expenditure on projects approved in the 1969/70 budget is estimated at N₵3,491,000, that is N₵1,770,000 short of the total appropriation.

The 1970–71 highway construction programme includes an appropriation of N₵7,682,000 to complete on-going projects for which contracts have already been awarded. A significant improvement in spending performance is expected, in view of the fact that two-thirds of this appropriation has to be spent on the re-alignment of the Nsawam–Bunso road where progress is presently very fast. Also the performance of contracts on the Ho–Denu and Kumasi–Bibiani projects has been improving.

There are 4 new projects included in the 1970/71 budget. The Techiman/Wenchi portion of the Techiman–Hamile highway is to be brought up to trunk road bitumen standard. The others are: Golokwati–Hohoe road, Bamboi Bridge and the Asukawkaw Bridge and approaches. In these cases, traffic density of about 250 vehicles per day is expected after project completion. It is the policy of the Government that no road project costing over N₵500,000 should be approved unless its economic viability has been thoroughly investigated. While no cost-benefit analysis has been carried out yet on these projects, the Government is of the opinion that the economic returns from them will be adequate to justify the investment expenditure involved.

Feeder Roads Programme.—The Government attaches very high priority to the feeder roads programme since it is crucial to rural development and increased agricultural production. This programme is now co-ordinated by the Ministry of Youth and Rural Development. The programme is a two-pronged attack on the secondary roads construction programme carried on under the supervision of the Public Works Department, and the rural works feeder road programme, under the Department

of Community Development. The Public Works Department programme has made satisfactory progress. During the period of the *Two-year Plan* there was increasing evidence that capacity of the P.W.D. to implement the programme increased considerably.

While in the eighteen months prior to July 1, 1968, only 185 miles of feeder roads were completed, 284 miles were completed in the twelve months covering the 1968/69 financial year, and over 326 miles are estimated to have been completed in 1969/70. The target of 450 miles set for 1970/71 therefore seems realistic and in line with the increased capacity of the P.W.D.

TABLE 13–2

PHYSICAL PERFORMANCE OF THE P.W.D. FEEDER ROADS PROGRAMME

Mileage constructed—

Prior to July 1, 1968	185
July 1, 1968 to June 30, 1969	284
July 1, 1969 to March 31, 1970	285
July 1, 1969 to June 30, 1970	326
Approved programme, 1970/71	397

While the physical progress has been encouraging this programme faces several difficulties that need reviewing. In many instances, construction standards have been set too high for the requirements of the traffic and costs have therefore been higher than they could have been. The overall physical programme is still not as well defined as to enable Public Works Department to exercise an adequate overall control over costs and construction progress. It is the policy of the Government that the feeder roads constructed under the supervision of the Public Works Department should conform in design to a uniform minimum standard. Also the cost of new construction (or reconstruction) should not exceed an average of N₵12,000 per mile. Local authorities are expected to co-operate with the Public Works Department's complying with these objectives, since excessive costs reduce the resources available for the expansion of the network in other areas.

Another problem arises from the lack of a comprehensive feeder roads master plan which could help the erstwhile Feeder Roads Board to phase expenditure, to co-ordinate the roads programme with agricultural and other rural development programme and to evaluate annual performance against total needs. The size of the total investment undertaken in this field during the last three and half years (close to N₵10 million) and of the annual expenditure envisaged (close to N₵5 million) suggest that the time has come for improving the technical and economic support analysis required to guide Government decisions in this field. Since the master plan prepared in 1968 by the Roads and Building Research Institute in Kumasi has now been largely implemented, it is proposed to engage consultants during the financial year, to work out a new master plan for the whole country.

The feeder roads programme which has been entrusted to the rural development authorities consists of improvement and construction of village access roads, which are to be undertaken with the help of community voluntary labour. It is essentially a self-help programme to which the Government contributes the cost of materials and a minimum amount of equipment necessary for the performance of operations which cannot be done manually. Although it is the policy of the Government to use highly labour-intensive techniques in the implementation of this programme, there is a need for a minimum amount of transport and earth-moving equipment if the programme is to be effectively carried out.

During 1969/70 N¢1 million was allocated for the feeder roads programme of the Community Development Department. Of this amount, N¢668,000 was spent on equipment and only N¢180,000 was spent on actual road improvement and construction work. The balance was unspent. In view of the limited facilities that will be available to implement this programme in the 1970/71 financial year, the maximum expenditure envisaged has been estimated at about N¢708,000. To complete the equipment programme needed to set up two work units in each Region, an additional N¢950,000 is needed in 1970/71. The Department should thereafter be able to undertake actual road programme of about N¢800,000 to N¢1,000,000 per annum.

The use of the Workers' Brigade on rural road maintenance programmes will be continued in 1970/71, and N¢250,000 has been allocated for this pu pose. This allocation will be renewed in subsequent years only if the Brigade performs satisfactorily in this work.

It is proposed to shift the Public Works Department feeder roads construction unit (which has been engaged in a pilot scheme in the Asesewa area) to the Central Region during 1970/71. This unit is expected to operate as a contractor on the Phase II of the feeder roads project. The cost of this will be met out of the appropriation set aside for the purpose.

Ferries.—P.W.D. runs several ferry services to make up for lack of bridges in areas where traffic volumes do not justify the heavy expenditure involved. A need for a very substantial increase in the scope of these services arose as a result of the disruption of traffic caused by the formation of the Volta Lake and the consequent flooding of the roads network. This programme has made very slow progress so far, mostly on account of the delay in the completion of the Akosombo floating dock and approach, which were required for the assembly of new ferry craft. An aim of the *One-year Plan* is to accelerate the work on this programme. The work is to be co-ordinated with the Volta lake transportation project which is expected to be initiated in 1970/71.

At present, only one ferry craft is in operation at the Yeji crossing. However, six new craft to be used for service on the lake were ordered a few years ago under a West German credit agreement. Of these, four have already been delivered in Ghana, and one more is scheduled to be

delivered in the first quarter of the 1970/71 financial year. The Akosombo floating dock was inaugurated recently and work on the approach ramp will be commissioned shortly. It is expected that, by the end of 1970–71, four new ferry craft will be completely assembled, and two of them will be ready for service.

In the allocation of ferry craft to different localities first priority will be given to the Yeji crossing where ramps are already operational, and where the heaviest traffic demand is concentrated. Two more craft are expected before operation in the Yeji locality by May, 1971 to relieve traffic congestion on the main north-southern artery of the country's highway network.

During the *One-year Plan* period, it is proposed to complete the landing ramps at Kojokrom so that one Public Works Department ferry craft will be able to operate between this locality and Kete-Krachi, making use of the Volta River Authority landing facility already in place.

The Public Works Department operates several other ferry services. In 1969/70 the approaches and landing ramps at Dombai, on the Oti river were completed and service started. Work is in progress on the Daboya crossing and is expected to be completed in 1970/71. Work is also in progress on the reconditioning of two ferries "Ada" and "Amedika", which were transferred to the Public Works Department from the State Transport Corporation.

The 1969/70 estimate of expenditures for the ferry services was N₵480,000. The expected actual expenditure is N₵225,000, the shortfall being partly due to slow progress on the reconditioning of the old State Transport Corporation craft. Furthermore, the time needed to approve new contracts was underestimated, with the result that most major works approved for 1969/70 could not be started. The work to be done in 1970/71 is estimated to cost N₵1,083,000. In view of the progress presently being made in awarding contracts and in the completion of the floating dock facility, the increased allocation to the ferry services seems realistic.

Hydrological Works.—This programme consists of a series of coastal road protection improvement projects of the installation of flood control facilities, and measures for ensuring proper drainage in urban centres. The main projects underway at present are in Accra and in the Keta lagoon areas. Slow progress was recorded in 1969/70 on the project undertaken by the Hydrological Department. As against an appropriation of N₵1,481,000, only N₵749,000 is estimated to have been spent during the financial year. The large shortfall is on account of delays in commencing construction on the Kedzi canal out-let for which final designs have only recently been submitted and in the implementation of work on projects in Accra.

It is envisaged that better progress will be made on the ongoing projects in 1970/71. One additional project has been included in the 1970/71 budget, the Odaw-Onyasia drain at the outskirts of Accra. This

is designed to protect the main trunk road through Nsawam to Kumasi from floods during the rainy season. This project is a necessary technical complement to the realignment of the Nsawam–Bunso road. The two projects are both part of a programme undertaken to ensure a first class road connection between Accra and Kumasi.

The total estimated cost of hydrological work to be done in 1970/71 is N₵1,115,000, which is substantially less than the allocation made in the 1969/70 budget estimate but well above the estimated actual expenditures in that year (*see* Table 13–3).

Budget Summary.—Table 13–2 shows the broad items of budget expenditures on the roads programme in 1969/70 and 1970/71. The 1969/70 estimates are compared with forecasts of actual expenditures based on records of performance during the first three quarters of the year. The table is drawn up in such a way as to facilitate comparisons of the proposed expenditure during the *One-year Plan* period with estimates and actual expenditures on similar items in the previous financial year. This facilitates a judgement as to the order of priorities underlying the 1970/71 budget and the realism of the target performance.

The total size of the financial effort that is proposed in the 1970/71 roads programme is 10 per cent larger than the approved estimates of the previous financial year. The bulk of the increase is accounted for by larger appropriations on account of road construction and road maintenance work. It is worth noticing that the increase shown in the table (column iv) on account of the equipment programme of the Community Development Department is due to the change in the use made by the Department of the funds originally appropriated for road work in the 1968/69 estimates. A large part of the increased cost of road construction and highway maintenance is financed by reduced allocation to the Hydrological Department and by savings on P.W.D. overheads.

Compared with estimates actual expenditure in 1969/70, the 1970/71 budget is 24 per cent larger. To achieve this target will require a further improvement in the performance of P.W.D. and, above all, timely releases of funds. The bulk of the large increase in expenditure is expected to be incurred in road construction and will depend on the speed of contractors' performance in the four major highways works presently underway, and on the speed at which contracts will be awarded for the two new projects sanctioned in the programme. Shortfalls in expenditure under the road maintenance programme are only expected if release of funds for the replacement of equipment is delayed.

Volta Lake Transport

The possibilities of developing inland navigation facilities on the Volta lake have been under investigation by the Volta River Authority (V.R.A.) since the beginning of the Akosombo project. Several engineering studies have been prepared. A pilot scheme has been successfully operated for two years between Akosombo and Kete-Krachi.

The possibility of a build-up of freight traffic to the tune of 100–200 tons over a period of four to five years is presently envisaged and this volume of traffic would justify the development of small landing stages at various points on the lake. A first investment is therefore expected to be made during 1970/71. This will comprise the construction of a small port and ancillary facilities at Akosombo, improvement of the landing stage and installation of ancillary facilities at Yapei and, possibly Kpandu. A total appropriation of N₵500,000 has been allocated for these purposes in the 1970/71 budget.

In addition, navigational aids must be installed on the lake to enable the traffic to sail safely. Further engineering studies have to be conducted on the specific location of port sites, detailed designs must be prepared, and an amount of N₵200,000 has been allocated in the 1970/71 budget for these purposes.

The V.R.A. has set up the Volta Lake Transport Company in collaboration with private sector shipping interests. This joint enterprise began operations in March, 1969, and extended them in step with the expansion of landing facilities. It is the intention of the Government that apart from the North–South trunk route and others where exclusive franchise is granted to Volta Lake Transport Company, Ghanaian private enterprises will be permitted to operate passenger or cargo services in competition with the Volta Lake Transport Company routes on the lake.

The Government will direct its attention during 1970/71 to the problem of the financial viability of the public investments to be made in the development of landing stages, shore facilities and navigational aids on the lake. A system of charges for their use will be worked out with a view to recovering the capital costs without jeopardizing the long-term prospects of traffic growth.

Civil Aviation

Passenger traffic on the internal routes of Ghana has been growing at a rate of approximately 10 per cent per annum over the last three years. Ghana Airways has continued to operate one jet propeller 38-seat aircraft on the Accra–Kumasi–Takoradi–Tamale routes. The load factor on the aircraft has grown to about 75 per cent and the flying time has reached the maximum feasible for the type of plane in use. Under these conditions the expansion of carrying capacity to ensure an adequate service should be economically and financially justifiable.

Ghana Airways will purchase two aircraft in the same class as the one presently in use, which is on lease from Nigerian Airways. The lease arrangement will be discontinued. The two new planes are expected to enter service by the end of the 1970.

As a result of the planned doubling of capacity on internal routes the average utilization rate of the expanded fleet is expected to fall substantially from the present high level. While this will ensure better service to the public, it will be a liability to Ghana Airways. Two measures

TABLE 13-3

THE ROADS PROGRAMME: 1969/70 AND 1970/71 BUDGET EXPENDITURE ESTIMATES

(N¢'000)

	1969/70		1970/71		
	Budget Estimates (i)	*Expected actual expenditures* (ii)	*Estimates* (iii)	*Change with respect to 1969/70 budget estimates* (iv)	*Change with respect to 1969/71* (v)
Trunk roads construction ..	5,265	3,491	6.393	+1,128	+2,902
Feeder roads construction:(a)					
Public Works Department	(3,952)	(4,489)	(4,355)	+(403)	(-134)
Rural Development	(1,000)	(180)	(500)	(-320)	(+320)
Total Feeder Roads	4,952	4,669	4,855	-97	+186
Road maintenance and re-equipment programme, P.W.D.	10,396	9,896	11,526	+1,130	+1,630
Community Development equipment programme	—	668	660	+660	-8
Rural Development feeder roads maintenance (W.B.)	—	—	250	+250	+250
Public Works Department Ferry Services	480	225	600	+120	+375
Public Works Department Hydrological Works	1,841	749	1,115	-366	+366
P.W.D. Technical Services	1,318	828	930	-388	+102
Feeder Roads studies (Economic Division of Ministry of Agriculture)	30	30	40	+10	+10
Total	23,922	20,556	26,369	2,447	+5,813

(a) Excluding roads financed by the Cocoa Marketing Board.

will be taken to ensure the fullest possible utilization of the new aircraft. Firstly, one of the new craft will be used at times on the short-haul service on the West African route, to supplement the operation of Viscounts which can now only fly a reduced number of hours because of their age. Secondly, to improve the service on the internal lines and to stimulate a faster growth of demand in the short run, existing flight schedules will be changed. The restriction of flying operations to day-time at Kumasi Airport is presently making it difficult to implement this policy. A project has been prepared by the Civil Aviation Department to provide lighting at the Kumasi runway and taxi-ways so that night flights on the domestic routes will become feasible by the end of 1970/71. Consideration will also be given to developing the airfields at Sunyani and Tamale for commercial operations.

There is also a possibility of stimulating the development of feeder air services from the small airports and airstrips presently in existence in 36 localities in the country, to the major cities served by the Ghana Airways domestic service. Private entrepreneurs have shown considerable interest in the development of such a service. The Government proposes in 1970–71 to enter into negotiations with all private parties interested in setting up air-taxi service to the extent that such services prove compatible with the interest of the national air-line. The air-taxi companies will be expected to undertake the minor improvements required at some of the airstrips.

The improvement of services and growing traffic on the domestic lines is expected to result in more revenue for Ghana Airways. The present level of fares is, however, insufficient to cover operating costs and provide a margin of profit to the Corporation, after depreciation and interest on the capital invested in new aircraft. Consideration will be given to the possibility of adjusting fares with a view to increasing the revenues of the Ghana Airways.

The international operations of Ghana Airways are far from satisfactory and this is reflected in the continuing poor financial condition of the Corporation. The reason for this is that the aircraft presently used in the European service route is not economical. In addition, the carrying capacity availability to serve the West African route is inadequate. As a result the good traffic potential of the coast is not fully exploited, nor is the service to Europe as remunerative as it could be.

The managerial and commercial arrangements in Ghana Airways still leave much to be desired. The Government intends making sure that qualified accounting consultants are hired by the Corporation in 1970/71 so that timely audited accounts are presented to the Auditor-General and adequately compiled financial data are available to serve as guidance for improved managerial and commercial performance. Any decision for new purchases of aircraft for the international lines will be postponed until the financial position of Ghana Airways is fully known to the Government and there have been improvements in the accounting set-up so that financial implications of new purchases can be properly worked out.

The new projects included in the 1970/71 budget are the purchase of the two new aircraft for the internal lines and the installation of night navigation facilities at Kumasi Airport. The expenditure to be incurred for these projects in the next fiscal year is NȻ450,000 and NȻ88,000 respectively. Work will also commence on the Sunyani and Tamale commercial airfields. The Civil Aviation Budget for 1970/71 totals NȻ3,049,680, which is NȻ243,000 less than the estimates approved in the previous year.

14. POWER AND FUEL

Demand and Supply for power

In the short run the demand for power is determined by the increase in the use of electricity by customers other than Valco. Of particular importance is the demand of the Electricity Corporation of Ghana (E.C.G.) which increased substantially in 1969 and is expected to grow at a fast rate in 1970 and 1971. Demand from Valco will be constant until 1972 when the fourth potline of the aluminium refinery will be commissioned. Total generation and sales of electricity by the Volta River Authority (V.R.A.) are summarised in the following table for the years 1969, 1970 and 1971:—

TABLE 14–1

V.R.A. SALES OF ELECTRICITY BY MAJOR CUSTOMERS

(in millions of kwh.)

Customers	1969	1970	1971
Valco	1,972	1,967	1,967
E.C.G.	503	587	729
Other	204	212	222
Total sales	2,734	2,841	3,001

The rapid increase in the demand by E.C.G. has resulted in a rising load factor on the Volta system, which in turn permits greater efficiency in the utilization of assets and, accordingly, improve the financial position of V.R.A. Revenue is expected to increase by 8½ per cent in 1970 over the 1969 level. Operation surpluses are expected to reach about N₵5.05 million. In 1969 the V.R.A. showed reserves on the balance sheet for the first time since its creation. Progress towards achieving the target 8 per cent rate of return on Government investment is proceeding according to schedule.

During 1969, two loans were negotiated with the World Bank and the Government of Canada to finance an expansion of the Akosombo power plant to its maximum capacity. The tendering procedures connected with the purchase of the two additional generating units and auxiliary facilities have been completed, and the contract is likely to be signed in 1970/71. The fifth generator is scheduled to be operational in April, 1972 in order to coincide with the commissioning of the fourth potline of the Valco smelter. A third double circuit 161 kV transmission line is to be installed between Akosombo and Tema by 1972.

Consultants have been appointed and a main contractor is being selected to construct the new transmission line to Togo and Dahomey in keeping with the power sales agreements between the two governments and Ghana. The actual sales of power is now scheduled to commence by the end of 1971.

The E.C.G. programme to expand the distribution network in the major cities has fallen somewhat behind schedule but steps are being taken to remedy this situation. In spite of this, power sales have been increasing at a fast rate and the overall financial position of the Corporation is satisfactory. A further expansion of the distribution network is contemplated after 1970/71. A project is being prepared for this purpose with a view to obtaining financial assistance from the International Development Association and the West German Government.

Rural Electrification

In its efforts to improve living conditions in the country and to promote social development in the rural areas, the Government intends carrying out a programme of rural electrification. A Committee has been appointed to investigate how best this matter can be tackled and to recommend a programme of action.

Pending the recommendations of this Committee the *One-year Plan* has been designed on the basis of the following investment policy principles:—

(i) that it is in the interest of the country to provide power to as many villages as possible within the limits imposed (*a*) by the resources available and (*b*) by the implementation capacity of local councils and other agencies;

(ii) that the spare generating capacity that exists in several areas of the country should be utilized first before new investment in generating capacity is undertaken at a later stage;

(iii) that it is essential for the long-term success of this programme so as to ensure that the cost of providing these services does not become a heavy permanent burden on the Government's recurrent budget.

The interim programme approved for 1970/71 consists of the following lines of action:

(*a*) Distribution facilities will be installed in all villages where spare generating capacity of the Ghana Water and Sewerage Corporation exists. The Government will subsidize the cost of materials such as wire, insulators and switches, and of the supervisory staff employed by the E.C.G. for this purpose. Labour requirements and local materials such as wood poles, will be freely provided by the local councils through communal efforts.

(*b*) Local councils will be responsible for collecting from the people the revenue required to reimburse the Water and Sewerage Corporation for the cost of generating the power supplied to them separate matters will be installed for this purpose and bills will be sent out on a fortnightly basis. Failure to settle bills within two days will result in the immediate suspension of supplies.

(*c*) The local councils will be responsible for the maintenance of the distribution facilities and for the financing of replacement costs of expendable parts.

(*d*) the E.C.G. will provide technical assistance for the implementation of the programme and train villagers in the maintenance of distribution facilities.

There are 63 towns and villages where spare generating capacity is available and can be utilised for the rural electrification programme. For administrative convenience a beginning will be made in the areas already served by generating sets of the Water and Sewerage Corporation. N¢1 million is provided in the 1970–71 development budget to finance other schemes that may be proposed by the local councils and other administrative centres, on the firm understanding that the policy principles of the interim programme will be strictly adhered to.

Fuel

Production of petrol and other fuel oils increased in 1969 and is expected to grow further in 1970 and 1971. This is a reflection of the growing demand, particularly for petrol and gas oil, established at about 5 per cent per annum. The installed capacity of Ghana's oil refinery is however still underutilised. This is particularly true in the case of heavy fuels where demand is weak. The export value of the refinery residual is low and prospects for a price increase are poor in view of the state of the world market.

In order to utilise the existing capacity better and to help reduce the present extremely high cost to the economy of importing bitumen, it is proposed that the facilities installed at Tema be expanded and a bitumen plant installed. The road rehabilitation and improvement programme and the expected recovery of other construction activities will support a domestic production of bitumen of 15–20,000 tons. A feasibility study is being prepared to ascertain the optimum plant size, in view of the possibility of supplying some of the neighbouring countries with bitumen made in Ghana. The financial and economic viability of the project will be closely scrutinised before a final decision is made on whether to go ahead with it.

15. POSTS AND TELECOMMUNICATIONS

Telecommunications continue to be one of the weakest links in the nation's economic infrastructure. By the end of 1969 the total number of telephones installed was 43,863. At the same time there were still 13,907 applicants on the waiting list. Very little progress has been made in extending the services in the Northern and Upper Regions. Some congestion has already been experienced on the S.T.D. trunk lines opened in 1968.

It is reckoned that out of the original allocation in the capital budget of N¢4,410,000 in the 1969/70 financial year, the total expenditure by the end of the year was approximately N¢2.9 million, i.e. of 66 per cent of the allocation. The shortfall is partly explained by lower contract payments made by the Department due to changes in the financial arrangements in the course of the year. There were also under expenditures on other items such as the expansion of the telex semi-automatic exchange, Adentan electricity supply and the installation of barring equipment. These were all due to late releases of funds in the second half of the financial year. On the other hand the outlay on P.A.B.X. exceeded the allocation in view of urgent requirements to meet demand. No expenditure was made in respect of the approved radio link between Tamale and Bolgatanga as the equipment was in the process of being manufactured.

The seemingly poor development performance of Posts and Telecommunications in 1969/70 is attributed to a large extent to the fact that authority to place orders was not given quickly enough. There were also slow deliveries of telecommunication equipment and delays in the release of funds which further delayed the ordering of equipment.

The investment policy for the fiscal year 1970/71 gives priority to the implementation of projects which were under way during the previous fiscal year. The estimates of expenditure to be undertaken in this connexion in the next financial year include a larger amount for P.B.X. than voted in the previous budget. Generally emphasis will be placed on replacement of all obsolescent P.B.X.s, on the improvement of service at the Ministry Exchange by the installation of additional switchboards to avoid congestion and on works which go to make maximum use of existing facilities.

On-going projects include the completion of the Bolgatanga automatic exchange; the installation of a new 120 channel MW system at Tema; the reinforcement of existing S.T.D. routes; and the installation of much needed airconditioning plants in several automatic exchanges.

The policy for investment in new projects during the next fiscal year is dictated by the following considerations:—

(*a*) the need to improve the standard and volume of service in areas which are highly revenue producing. This calls for extension of the Tema Exchange and the development of the Tema U/G network, the provision of a mobile exchange unit in Accra to expand the connection in the North-eastern

area of the city until the Cantonments Exchange extension is approved and extended. Minor expansion of exchange capacity will be carried on in Takoradi, Cape Coast and Koforidua;

(*b*) the need to ensure proper protection of the equipment already installed in the country; this calls for the installation of airconditioning plants in all the exchanges lacking such facilities at the moment;

(*c*) the need to connect the Upper Region, including the Bawku area with its agricultural potential and therefore an important contribution to the economic development of the country, with adequate links with the rest of Ghana. This calls for the installation of a new radio link between Tamale, Gambaga, Bolgatanga and Bawku. This solution has been found to be more economical than the alternative ways of extending telephone facilities to these areas by overhead wire;

(*d*) the urgent need to improve the inadequate telephone facilities in the administrative centre in Accra, especially in view of the proposed construction of new buildings in the area. This requires the installation of a new exchange in the Ministries area;

(*e*) the need to improve and extend telephone facilities in the rural areas, particularly between District and Regional Headquarters, and the bigger towns;

(*f*) the need to improve telephone facilities between Ghana and the neighbouring countries: this calls for the installation of a new MW system between Accra and Lome, Togo, and between Accra and Lagos, Nigeria;

(*g*) in addition, it is proposed to install a VHF link from Sunyani to Wenchi.

In order to increase the mobility of the Department of Posts and Telecommunications staff, to ensure proper maintenance equipment, and ensure a smooth implementation of new projects, the vehicle fleet of the Department will require expansion. Funds are included in the budget for this purpose. The total prepared budget for the Posts and Telecommunication Department for the fiscal year 1970/71 is N¢5,415,000. This figure is larger than the estimate approved in the previous fiscal year (N¢4,470,000) by N¢944,000 or by some 21 per cent. The larger allocation was arrived at after careful scrutiny and excludes several important projects which could be started if funds were available. Foreign aid will be available to finance part of the projected expenditure. A German loan of N¢300,000 has been negotiated to finance the importation and installation of the Tema exchange equipment. The U.S.A.I.D. has agreed in principle to finance the foreign exchange costs of airconditioning plant and of the Accra–Lome and Accra–Lagos links, totalling N¢124,000 and N¢110,000 respectively.

The possibility of achieving a physical performance corresponding to this level of expenditure depends to a large extent on the timely release of funds to the Department. Since equipment is shipped only against firm orders and letters of credit, which require the full deposit of the local currency equivalent with the banks, delays in release of funds result in holding up operations entirely in the case of most projects. To avoid these difficulties it is advisable to increase the size of its revolving fund, the amount of which was set several years ago when the total size of operations were considerably smaller than today. A special Committee will be set up by Government shortly to look into this matter.

Irregular payments by users of telecommunication facilities is still a matter of great concern to the Government. It is proposed that, as a measure to improve revenue collection, a credit controller should be appointed. The method of billing also needs to be streamlined and improved to reduce time-lags.

A total appropriation of N¢82,500 is included in the Budget to finance improvements and reconstruction of Post Offices at Koforidua, Sunyani, and Foso. A study of the mail distribution system is to be undertaken during the Plan year with a view to identifying ways and means to improve the service at minimum costs.

16. WATER SUPPLY

Table 16–1 gives some indication of the volume of water production per head of population in communities of different sizes.

TABLE 16–1

WATER PRODUCTION BY SIZE OF COMMUNITY

Size of Community(a)	*Gallons per head per day*
Below 5,000	.5
5,001–20,000	2.1
20,001–50,000	4.5
50,001–100,000	5.4
100,001 and above	33.0

(a) Estimated population in 1970.

In Ghanaian conditions, it is estimated that the minimum water consumption *per caput* which is required to offset the worst effects of water-borne diseases is 5 gallons per day.(1) The figures of Table 16–1 show that, on the average, all communities below 50,000 inhabitants receive less water than the minimum requirement.

Only 209 out of 400 settlements of between 2,000 and 10,000 inhabitants are supplied with pipe-borne water. Only a few of the settlements of between 200 and 2,000 inhabitants (estimated to be about 8,000) are equipped with devices supplying drinking water (such as borehole with hand pumps, and Henderson boxes). By contrast, the supply of water to the large communities compares favourably with standards obtaining in urban centres in much more developed countries. After adjustments have been made for the smaller industrial and commercial demand for water, the supplies in the big cities of Ghana compare favourably with those prevailing in industrial countries.

The estimated demand for water supply in 1970, and the distribution of population requiring such supplies by different sizes of settlements is set forth in Table 16–2.

TABLE 16–2

DEMAND FOR WATER BY SIZE OF COMMUNITY

Size of Community	*Demand requirement gal. per capita/day*	*Percentage of distribution Total population in 1970* (a)
200–2,000	5	46.2
2,001–5,000	7	17.1
5,001–10,000	8	9.9
10,001–20,000	8	7.1
20,001–50,000	14	4.9
50,001–100,000	18	2.6
Over 100,000	30	12.2

(1) The concept of minimum requirement is derived from estimates made by Sector Studies, Interim Report, *Domestic and Municipal Water: Estimated Requirements and Present Supply*, by Nathan Consortium for Sector Studies, Accra, November, 1969.

(a) Excluding population living in centres of less than 200 inhabitants.

Source: Sector studies, *ibid.*

Table 16–3 shows that in the main cities the available supply is approximately in balance with estimates requirements. In urban centres of over 20,000 inhabitants however, the supply approximately covers two-thirds to three-quarters of requirements while in urban centres of less than 10,000 inhabitants supplies amounted to less than one-fourth the minimum estimated requirements. In rural areas the water availability came up to only one-tenth.

TABLE 16–3

WATER SUPPLY AND DEMAND BY SIZE OF COMMUNITY

(Million gallons a day)

Size of Community	*Volume produced*	*Required*	*Shortfall of production over requirements*
200–2,000	0.3	19.2	18.9
2,001–3,000	1.1	8.5	7.4
5,001–10,000	0.8	6.6	5.8
10,001–20,000	1.9	4.7	2.8
20,001–50,000	3.5	5.7	2.2
50,001–100,000	3.5	3.9	0.4
Over 100,000	33.5	28.7	4.8
Total	44.6	77.3	32.7

The imbalance between supply and the minimum requirements is fairly large. Total water production should be roughly twice as large in 1970 as in 1969 to cover the full requirements of the population living in centres of over 200 inhabitants. Even where account is taken of the low cost of investment in water supply facilities in communities of less than 2,000 inhabitants (where pipe-borne supplies are not contemplated), in order to narrow the gap between supplies and requirements to a tolerable size would require substantial investment. In addition, a large volume of resources will be required to cover the cost incurred by the Ghana Water and Sewerage Corporation (G.W.S.C.) for the operation and maintenance of the water supply systems. Until recently the revenue collected by the G.W.S.C. was inadequate to meet maintenance costs. It cannot therefore be expected to generate financial surpluses to support part of their expansion programme.

For the financial year 1970/71 the Ghana Water and Sewerage Corporation estimated that only the three city systems (Accra-Tema, Greater Kumasi, and Sekondi-Takoradi) will be financially self-supporting from the point of view of operation, and maintenance costs. Of these, only the Accra-Tema scheme is presently able to finance its expansion programme outside budgetary sources, by borrowing from the World Bank.

With regard to water supply schemes in centres of between 10,000 and 100,000 inhabitants, the Corporation estimates that, despite the recent increase in water rates, only 45 per cent of the costs of operation and maintenance (excluding both depreciation and returns on capital) will be met by revenue receipts, leaving a current deficit estimated at N₵1.5 million including N₵358,000 on the Head Office Administration for the 1970 71 financial year. It is addit onally estimated that a current loss of N₵850,000 will be incurred in the operation of rural water supply schemes in the 1970/71 period.

Some of these losses have been incurred because of the high operating costs of G.W.S.C. The costs could be reduced in the course of time by stern action aimed at improving the productivity of the labour force and reducing wastage of materials.

It has been estimated that the highest returns to the economy on investments in water supply projects are attainable only when the minimum *per capita* requirements of water have been made available to people in the rural areas. In view of the lower incidence of unemployment in agriculture and related activities, the additional working days which may result from improving health conditions, by means of good rural water supplies are likely to be more fully translated into additional production than in urban areas where widespread unemployment is likely to continue in the near future. This is especially true when rural underemployment is contributed to by water-borne disease. In addition, better water supply facilities are considered to be an important means for making village life more attractive. It might therefore have a favourable effect on the present rural migration to the towns, which aggravates the urban unemployment situation.

In line with the general policy of the Government to improve living conditions in rural areas and to promote a faster rate of growth of production in the agricultural sector, great importance is attached to rural water supply schemes. In view of the limited resources available to the Government it is essential that the claim on budget resources required for improving the water supply situation be kept to a minimum. On the other hand, the principle is fully recognised that efforts should be made to make the minimum water requirements available on a subsidised basis to that part of the population which does not have the means to pay the full cost of these services.

In order to achieve these targets the following principles of government policy will apply in the design and operation of the water supply programme:—

(*a*) in communities below 50,000 inhabitants, the Government will consider a proposal to reimburse the Ghana Water and Sewerage Corporation for the full cost of supplying the first five gallons per person per day. Payments of the subsidy will be based upon evidence that the Corporation is making adequate effort to collect revenue to pay the balance of the cost between total water produced and the amount of the public subsidy;

(*b*) in communities between 50,000 and 100,000 inhabitants, no subsidy will be paid to meet the operation and maintenance costs of the Corporation, beginning in the financial year 1971/72. It is estimated that the new water rates approved in March, 1970, if accompanied by the necessary improvements in cost controls and better performance in revenue collection, will be sufficient to eliminate the need for current subsidies by the end of 1970/71; Government will continue to finance the cost of expanding the existing facilities in those places where commercial financing is not yet feasible;

(*c*) in communities above 100,000 inhabitants no subsidy will be paid to meet the operation and maintenance costs of the Corporation. In addition, so far as investment goes, budget resources will be used only to complete the physical work approved in the 1969/70 budget; further expansions will have to be financed outside the budget.

In addition to the high cost of water supplies and inadequate revenue from commercial sales, the water supply programme has suffered from failure of G.W.S.C. to implement the construction programme in the high priority field of rural development especially in the shallow well sinking programme.

During the 1969/70 financial year, as against a total Budget of N₵7,554,000 for the Ghana Water and Sewerage Corporation only N₵6,640,000 is estimated to have been spent. The water supply construction programme was budgeted at N₵6,131,000 but of this only N₵5,761,000 was spent. The expenditure on the construction programme does not, however, fully reflect physical progress. In 1969–70 the G.W.S.C. phased out its construction programme in accordance with the release of Government funds. In other words, Government paid for the construction programme in advance rather than upon the completion of work. In effect the Corporation continued to operate as a Government department. The result of this policy was that, on the one hand, more resources were used to stockpile construction materials than was necessary for the smooth operation of the construction programme, and, on the other hand, more projects were started and carried part-way through than would have been the case if Government had only reimbursed the Corporation for work actually done. During the 1969/70 financial year the liquidity of the Corporation was unduly high. At the beginning of 1970, the working capital held in terms of stores and materials was N₵6.6 million. Excluding the volume of stocks which is required for operation and maintenance, this was equivalent to well over 100 per cent of the total materials required. In addition, substantial cash balances had been accumulated on the Corporation's balance sheet.

In order to improve construction performance, the 1970/71 budget for water supply has been designed on the basis of two general policy principles:—

(*a*) The G.W.S.C. will run down its excess stores to a level which is sufficient for the smooth implementation of its activities. This will result in a transfer from current to fixed assets

account of approximately N₵2.1 million which will accordingly reduce the need for budget resources to finance the water programme.

(*b*) Government will reimburse the Corporation for the costs incurred in the construction programme only when they are supported by certificate of physical progress.

The total construction programme to be completed in the 1970/71 budget, excluding the Accra-Tema scheme which is financed separately is estimated to cost N₵9,620,000. This represents an increase of more than 66 per cent over the actual expenditures of the previous financial year and an increase of 52 per cent over the approved estimates of 1969/70 (*see* Table 16–4). It is a very ambitious programme, the size of which reflects the high order of priority attached by Government to the expansion of water supplies in the country.

TABLE 16–4

G.W.S.C.—SUMMARY OF DEVELOPMENT BUDGETS

(N₵'000)

	1969/70		1970/71		
	Original estimate	*Revised estimate*	*Total*	*of which Financed by G.W.S.C.*	*Budget estimate*
On-going Projects					
City schemes	1,804	1,820	1,468	500	968
Urban schemes	890	880	282	30	252
Rural schemes	3,337	3,061	3,123	1,000	2,123
Sub-total	6,131	5,761	4,823	1,530	3,343
New Projects					
City schemes	—	—	400	200	200
Urban schemes	—	—	1,857	370	1,487
Rural schemes	—	—	2,490	—	2,490
Sub-total	—	—	4,747	570	4,177
Miscellaneous	1,429	879	—	—	803
Grand Total	7,559	6,640	9,620	—	8,334

The 1970/71 programme involves expenditures by the Corporation of N₵4,873,000 on on-going projects and N₵4,747,000 on new projects. The construction programme in the main cities is estimated to cost N₵1,868,000 (about 19 per cent of the total, that in the urban areas at

N¢2,139,000 (about 22 per cent); and that in rural areas N¢5,613,000 (about 58 per cent). This distribution of the construction programme among different types of communities fully reflects the Government's emphasis on rural water supply. Special mention should be made, in this context, of the shallow wells programme, which is expected to result in the installation of over 800 hand pumps in a large number of localities in rural Ghana which presently have no drinking water facilities.

The construction programme in urban areas gives special attention to short-term improvements of the distribution system wherever water rates have been increased, so that better service will be extended to the public and more revenue will accrue to the Corporation. In the three city schemes, the budget of 1970–71 has been drafted in accordance with the principles set out above with the exception of the completion of the on-going scheme at Sekondi-Takoradi, where funds have been voted in excess of the scope of physical work approved in the 1969/70 financial year. This is the last such contribution by Government to a city scheme by way of outright grant.

TABLE 16-5

REGIONAL DISTRIBUTION OF WATER PROJECTS, 1970/71

N¢

Region	*On-going Projects*	*New Projects*	*Total Programme*	*Percentage of total Programme*
Greater Accra	165,000	122,100	287,100	3.85
Eastern	612,620	375,540	988,160	13.26
Western	415,390	529,900	945,290	12.68
Central	540,290	228,660	1,268,940	17.03
Volta	75,180	476,430	551,610	7.40
Ashanti	671,630	304,160	1,075,790	14.43
Brong-Ahafo	329,140	508,940	838,080	11.25
Northern	235,750	684,090	919,840	12.34
Upper	113,560	464,470	578,030	7.75

The regional distribution of expenditure on construction of schemes envisaged for 1970/71 is summarised in Table 16–5. The figures exclude the Accra-Tema scheme which is not financed through the budget.

17. HOUSING

The acceleration in the rate of growth of the urban population—a direct consequence of the rural-urban exodus and the concentration of development and therefore job opportunities in a few urban centres—has contributed to the acute housing shortage being experienced in the cities. The housing problem in the rural areas is of a different nature. Here the need is for assistance in bringing about some qualitative improvements in the layout, design and materials used. While marginal public efforts in the rural areas can be expected to stimulate the construction on private account of decent housing, in urban centres there is need for substantial public effort in the provision especially, of low and medium cost housing for low and middle income personnel.

The dearth of adequate and reliable statistical information on demographic and housing developments makes the estimation of housing needs rather difficult. The evidence strongly indicates that the production of dwelling units falls far short of the national need and that the units produced are not always appropriate to the needs of the many ill housed urban dwellers.

It has been estimated that some 6,000 new dwelling units are produced annually. This figure contrasts sharply with the estimated total annual housing needs of some 16,000 units at existing occupancy rates (*see* table below). Of these the urban requirements of about 7,000 units exceed the estimated current production.

TABLE 17–1

ESTIMATED HOUSING NEEDS

	Existing housing 1969			Additional housing needed excluding replacement	
	Number of houses	*Persons per house*	*Estimated annual population increase*	*At existing occupancy rate*	*At standard for planning of ten persons per house*
City[1]	34,900	23.0	60,000	2,175	6,000
Town[2]	68,300	21.1	110,000	5,210	11,000
Rural[3]	633,000	10.0	90,000	9,000	9,000
Total	736,200	11.7	260,000	16,385	26,000

[1] Included are the Accra-Tema, Kumasi and Sekondi-Takoradi centres.
[2] Defined as localities with populations of 5,000 and above but excluding the cities.
[3] All localities with populations under 5,000.

In order to make any impact on the existing housing situation the Government aims at a gradual reduction of the present occupancy rate to about 10 persons per house. This would raise the annual production requirement to about 26,000 units with all the 10,000 additional units being located in the urban areas. Replacement of obsolete houses is not included in these figures. Hence it is clear that a substantial increase in housing production will be necessary. If a serious attempt is to be made to improve the urban housing situation the capacity and efficiency of the construction industry will have to improve significantly.

The Two-year Plan aimed at a higher production of new dwellings. The State Housing Corporation (S.H.C.) and the Tema Development Corporation (T.D.C.) were expected to construct 4,000 low-cost houses each during the Plan period. S.H.C. was able to put up only 764 housing units and T.D.C. built 1,012 low cost houses, giving a combined total of 1,776, as against a target of 8,000 for the two-year period. In addition S.H.C. constructed 288 houses for hire. One of the main reasons for this shortfall has been the lack of budgetary funds to finance more houses. Against this background it is desirable,

(*a*) to increase the resources available for the construction of housing projects,

(*b*) to provide from available resources houses for the maximum number of people.

When considering alternatives for *increasing the flow of funds* for new houses the economic potential of the country should be kept in mind. In particular, it is not feasible to finance all requirements for houses through the Central Government budget. The Government therefore aims at a mixture of public and private efforts to raise the level of investment in housing:

the two housing agencies of the Government, namely S.H.C. and T.D.C. must move to a commercial basis and should be able to attain financial self-reliance after initial help from the Government over a limited period.

If rents are raised gradually to economic levels previous investments will be recouped and can be re-invested in new housing projects.

Government will encourage house-ownership generally, which will stimulate savings for housing investments.

More capital for housing should be provided through building societies, housing co-operatives, banks, insurance companies, private financiers and housing financing consortia. In this connection the First Ghana Building Society has been reorganised, and the public will be made aware of the advantages of saving or investing with a building society. Moreover, the State Insurance Corporation will be encouraged to supply mortgages to its customers.

Efforts will be made to amortise the capital invested in existing Government housing for civil servants and other public officers by reconsidering the existing rents and selling these houses to raise capital for housing and simultaneously to reduce the outlay on the maintenance of bungalows and flats.

As regards the need to construct more houses with the still limited funds available the following principles of policy will be formed:—

- It is intended to achieve a marked shift from the production of luxury houses towards the construction of low and medium-cost houses.
- Municipal, urban and local authorities will be assisted to construct low cost housing units and in conjunction with the T.D.C. a workers' housing programme on a 'rent-purchase' basis will be developed.
- Research into the production of low cost housing utilizing domestic materials will be further encouraged.

Funds have been provided in the 1970/71 budget for the Building and Road Research Institute in Kumasi and for the Housing and Planning Research Department to enable them to expand research on low cost housing construction.

Two other aspects of the housing policy deserve special attention, namely, the promotion of indigenous building materials and the stimulation of rural housing. The high import content of construction constitutes a severe constraint on the economy's ability to cater adequately to the use housing needs. Government will encourage research into the *extensive of local building materials*, especially through the two research institutes in Kumasi. Building materials which can be obtained locally at the moment include cement, sand, laterite, bricks, lime, timber, iron, aluminium sheets, nails, glazing glass and stone. Some of these, for example, cement, still require the importation of raw materials, and others like bricks, tiles, lime and steel are produced only in negligible quantities. Raw materials resources are, however, plentiful locally and should be exploited more fully, in order to lower the cost of housing to some foreign exchange.

As regards *rural housing*, the Roof Loans Scheme will be reactivated and modified in the light of the experience gained from the inspection tours on Roof Loans projects throughout the country. The present ce ling of N¢800 can be used through aided self-help scheme to improve the standard of rural housing. It will be the policy of Government to provide technical aid under the Roof Loans Scheme to help people to build comfortable houses in properly planned communities instead of the unplanned developments which have hitherto characterised the rural areas

In addition, funds have been allocated in the budget of the Ministry of Rural Development to encourage new village settlement and townships. Since the construction of Krobo new village in Ashanti, a lot of interest has been generated in the possibility of the reconstruction of other villages through communal labour. An allocation of N¢300,000 has accordingly been made in the estimates for the construction of Krobo-type villages in other regions to demonstrate the potentialities of this scheme as Krobo has in Ashanti. Emphasis will be laid in this programme on the preparation of layout plans and the regrouping of isolated villages, particularly in the Northern and Upper Regions, into larger units.

18. HUMAN RESOURCES

Manpower and employment

Ghana's manpower resources are the instrument by which national development goals can be achieved. At the same time, the improper utilisation and massive unemployment of these resources can jeopardise development efforts and create social, economic and political problems. It is the policy of the Government, therefore, to seek the full and proper utilisation of the nation's human resources in order to achieve economic progress and enhance the well-being of the individual. This, however, can only be attained if there is an effective and co-ordinated adaptation and application of our educational systems and facilities to the task of raising the skill level of the labour force through formal training as well as learning on the job. Our efforts to generate skills will be accompanied by an adequate incentive system to stimulate our skilled workers to contribute adequately to the developmental effort.

The statistical information now available does not provide adequate data on the current size, occupational composition and economic activity of the labour force. Nor does it shed adequate light on the extent of employment, underemployment and unemployment, nor the degree of manpower utilisation. The detailed results of the 1970 Population Census will provide the data for making quantified estimates of the magnitude of some of the above variables. The findings of a survey of skilled and high-level manpower now being processed will also contribute useful data. The Government recognises the need to improve the information availability on manpower and employment and welcomes steps being taken by the Central Bureau of Statistics and the Labour Department towards this end.

Ghana's labour force has been growing rapidly. It has been estimated that as many as 210,000 to 225,000 enter the labour market each year. A growing proportions of these are Middle School leavers. The preponderance of this group among new entrants to the labour force is the result of the expansion in the 1960's of Middle School education. In 1970, more than 65,000 young people are expected to complete Middle Schools. Of these only some 11 per cent will gain admission to Secondary Schools. If 55,000 to 60,000 jobs are opened up for replacements because of deaths and retirements, there remains a residual of 145,000 or more additional job opportunities required to accommodate the annual increase in the ranks of job seekers.

The attainment of the Government's manpower and employment objectives can be facilitated by the adoption of appropriate price and incomes policies. Interactions exist between prices, wage levels and fluctuations in real incomes. While the control of inflation is a problem of fiscal policy, as well as monetary and credit control, it also effects the wage structure. The Government intends to ensure that a price and incomes policy that is in consonance with its development objectives is adopted and implemented.

Attempts made in the past to regulate prices and incomes have not been very successful. The Incomes Commission which was set up to formulate national incomes policy and advise the Government on all aspects of policy relating to wage and salary rates, had no control over price increases; it also lacked legal backing to enforce its decisions with the result that between 1969 and 1970, wages and incomes increased by an average of 10 per cent in the private sector. Whilst increases in the public sector did not conform to any pattern, increases recorded in some cases were as high as 100 per cent.

The Government recognises the important role an appropriate price and incomes policy could play in the guidance of the country's economy. In this connexion, the Incomes Commission is being re-organised to bring the review of prices of essential commodities under its control. Legislation will also be enacted requiring all bodies concerned with the determination and regulation of wages and salaries to work within the framework of the national incomes policy to be outlined by the Government on the recommendation of the Prices and Incomes Board, which is to replace the Incomes Commission. At present, the Incomes Commission is conducting a survey on the cost structure of essential locally manufactured commodities with the aim of arriving at guidelines for determining controlled prices.

The expansion of the economy depends to a large extent on the productivity of our labour force. The Government recognises the special need for raising the general level of labour productivity with particular attention being paid to productivity in the public sector. A working group on productivity in public services is to be set up. The group will comprise representatives of the relevant principal agencies. A special staff unit under the Manpower Board will service the Working Group. The objective is to develop a broad and vigorous programme for improving performance in Government agencies, with particular attention to personnel management, supervision and the establishment of work standards. Preliminary work has been done in outlining elements of such a programme.

The unemployment problem

Unemployment continues to constitute a most serious and pressing problem especially in the urban centres. The actual magnitude of the problem is not precisely known, and until results of the 1970 Census are known, it can only be approximated. According to the Manpower Board's Annual Report, unemployment in 1960 amounted to about twenty-five per cent of the total wage labour force. Available information seems to indicate that the present position is not better than that of 1960. Estimates of people actively seeking wage employment range from some 350,000 to 600,000. The present magnitude of the unemployment problem is the combined result of the slowdown in economic growth which has adversely affected the economy's job creating capacity as well as the high rate of growth of the labour force. To the over 80,000 workers who were laid-off during the stabilisation and retrenchment phase beginning in February 1966 must be added annual additions to the labour force. To some

extent the unemployment situation has been accentuated by discrepancies between the types of work available and the skills and preferences of job seekers.

In order to encourage the proper utilisation of our factor endowments in proportions that reflect their scarcity value, the Government will instruct executing agencies to give preference to labour itensive rather than capital-intensive methods wherever such choices are technically feasible and economically reasonable. The capacity of an industry to create employment will be given due consideration in the selection of projects to be supported by the Government. The Government will encourage the use of simple tools in agriculture, together with improved methods and inputs with a view to increasing productivity without too much mechanisation. The substitution of labour for capital will not, however, be effected if wage levels continue to rise in a manner unrelated to productivity increases and the real value of labour. Uncertainty in the labour market due to strikes and other practices disruptive of a smooth supply of labour will also tend to encourage the use of capital-intensive methods. The Government will therefore seek, through the Prices and Incomes Board, to maintain wage rates at appropriate levels. It will also seek the support of the trade unions and management organisations in ensuring smooth labour-management relations.

In the past, shortage of industrial raw materials forced some industries to lay-off redundant personnel. In order to avoid the recurrence of this situation, an import programme has been devised to ensure an improved flow of required raw materials.

Many of the causes of urban unemployment are rural. The slowing down of excessive rural-urban migration will depend mainly upon the effectiveness of the technical supports for agriculture in making farm careers more attractive as viable alternatives to urban jobs, as well as improving rural living conditions. Agricultural development, therefore, forms an essential part of the Government's rural development programme. The main strategy for improving the economic rewards for farming and other rural activities will consist of giving encouragement to farmers by making available agricultural credit on easy and reasonable terms, the provision of extension services, improved transportation, the construction of feeder roads, better marketing facilities and the strengthening of the co-operative movement. The Government recognises that implementation of its rural development objectives will depend to a large extent on the adoption of a vigorous programme for improving living conditions in the rural areas through the provision of good drinking water, health facilities and electricity. This it intends to do. (see chapter 21). A major instrument for carrying out this objective will be the National Service Corps whose activities will be directed towards the provision of these amenities in the rural areas. It is hoped that these measures will help arrest the present high rate of urbanisation and thus favourably affect the rate of unemployment in the urban centres.

Some openings have been created in trade and other occupations by the exodus of aliens as a result of the Government's compliance order, and it is hoped Ghanaians will take their places. The Government's policy, described in the next section of this chapter, of restricting to Ghanaians certain fields of trade where operations fall within their technical competence, is aimed, among other things, at encouraging Ghanaians, to move into fields of economic activity at present dominated by aliens.

The Government recognises the vital connection between the growth of the population and the growth of unemployment. It will, therefore, vigorously pursue a national family planning programme (*see* below).

Ghana's manpower problems are not only those of growing unemployment but also one of finding suitable Ghanaians to fill certain key positions in the economy. There is need for more doctors, engineers, architects, surveyors of all types, accountants, agriculturalists, managers, and middle-level technical personnel. Many jobs in these fields are still held by non-Ghanaians. The Government intends to appraise the contribution of the education and technical training systems to the national development needs. The Manpower Board will examine the relationship between formal schooling, vocational training and practical work experience in the development of skills, and will seek ways and means to achieve the most productive mix among the various alternatives. The Government will also continue its policy of reviewing immigration quotas of business establishments with a view to replacing of expatriates with qualified Ghanaians.

In the management field, the Government will continue to support agencies such as the Institute of Management and Public Administration, the Management Development and Productivity Institute and the National Vocational Training Institute which are contributing toward the upgrading of management and supervisory skills in both public and private sectors. This will be done through organised courses, in-plant and on-the-job training, and through special intensive programmes for top-level managers and administrators.

The Ghana Manpower Board

To improve the overall manpower planning and human resource development activities in the country, the Ghana Manpower Board established in 1968 is being re-organised, and an adequately staffed Executive Department headed by an Executive Director is being established.

It will be responsible for:

(*a*) formulating plans and policies for the development of the national education and training systems and the effective utilisation of the human resources of the national economy;

(*b*) reviewing and evaluating the manpower implications of national development plans and outlining the main priorities for meeting the manpower requirements.

(*c*) helping to evolve suitable plans for establishing and maintaining information system on the employment status of graduates from both Ghanaian and foreign universities and developing an active programme to assure their productive employment. Suitable arrangements will, when necessary, be made for the reception, transportation, and accommodation of all graduates returning home on the completion of their studies.

(*d*) developing and proposing suitable programmes for vocational guidance.

(*e*) developing plans and programmes to promote and co-ordinate the production of needed skills through on-the-job and work-related training, attachment within business establishments, and co-operative programmes which link formal schooling with work experience;

(*f*) developing and ensuring the implementation by appropriate bodies, of plans, programmes and projects designed to reduce unemployment. It will also examine and advise on the causes of unemployment.

(*g*) initiating policies, plans and programmes for periodic assessment of the manpower supply situation and the development requirements of the economy in consultation with, and utilizing the services of, the Central Bureau of Statistics and other appropriate agencies;

(*h*) maintaining continuous and close contact with employing authorities, and agencies concerned with manpower problems, in particular, the Public Services Commission, the Ministry of Education, the Universities, the Scholarships Secretariat, the Ministries of Youth and Rural Development, Agriculture, Industry and Trade, Ghana Employers' Association, Chamber of Commerce, the Trades Union Congress, institutions concerned with management and vocational training, and other relevant agencies;

(*i*) reviewing from time to time the policy of the Government on population and migration.

The Board will co-ordinate the functions and activities of all agencies involved in the development and utilisation of the country's human resources as well as undertake such other functions as are consistent with the achievement of the Government's manpower plans and policies. To facilitate the execution of these functions the Board will utilise on an extensive scale the service of special committees and task forces.

National Service Corps

The National Service Corps (N.S.C.) has been established as part of the Government's effort to mobilise all available human resources for productive activity. It will organise in towns and villages all who are able, willing and anxious to help the nation to meet pressing needs.

The main objectives of the Corps are:

(i) to encourage the spirit of national service among the youth of Ghana and to enlist the active support of all segments of the Ghanaian society in the effort of national reconstruction;

(ii) to undertake projects designed to combat hunger, illiteracy, disease and unemployment in the country;

(iii) to provide essential services and amenities particularly in the rural areas;

(iv) to develop skilled manpower through practical training.

A major objective of the Corps is to help minimize the continuous drift of youths to the towns and cities as well as contribute to reduction in the high rate of unemployment in the country. It will attempt to harness the potentially available skills and human energy to the development of all parts of the country. For this task the programme will engage the unemployed, especially among the youth, on schemes designed for imparting to them, through on-the-job training, skills needed by the economy.

The Corps will co-ordinate as well as work through existing voluntary organisations in its contribution to the building of community facilities such as places of convenience, wells, school buildings, health posts, bath-houses, markets, incinerators, minor feeder roads, town and village parks and gardens and Community centres. In the execution of its projects, the N.S.C. will work in close co-operation with the Ministry of Youth and Rural Development.

The latest available record shows that about 300,000 people have registered with the Corps. Of these about 50 per cent are currently unemployed, 20 per cent are student volunteers and 30 per cent are in full employment. The regional breakdown of the figures is as follows:—

Accra	87,973
Eastern	41,710
Central	19,946
Western	29,708
Ashanti	47,801
Brong-Ahafo	25,118
Volta	25,648
Northern	8,637
Upper	5,537

The initial selection of projects will be done at the district level working through District and Regional Committees. The programming, final selection, budgeting and the overall review of regional returns will then take place at the National Headquarters of the N.S.C. In these exercises and in other policy-making matters, the Director and the Assistant Director of the N.S.C. will be assisted by a National Committee. It is estimated that in 1970/71, approximately N¢900,000 will be spent on recurrent items and N¢2.26 million on capital programmes.

Ghanaianisation

The national objective of promoting and stimulating the participation of Ghanaians in the modern sector of the economy was first enunciated in July, 1968 and given legal sanction in the December, 1968, N.L.C. Ghanaian Enterprises Decree (N.L.C. Decree 322). Legal effect was thereby given to the reservation of selected fields of economic activity to Ghanaians. The Ghanaian Enterprises Committee was established under the Decree as the chief agency for implementing the provisions of the Decree and for advising the Government on matters relating to the promotion of Ghanaian businesses. Within the Ministry of Economic Planning, a Division has been set up as the main technical organ for:

(*a*) servicing the Ghanaian Enterprises Committee; and

(*b*) co-ordinating the activities of various agencies concerned with the Government's programme for the promotion of Ghanaian business enterprises.

The Government, in collaboration with the United Nations Development Programme and the International Labour Organisation, has mounted a management training programme being organised by the Management Development and Productivity Institute (MDPI). Already foreign business communities as well as individual foreign businessmen take advantage of the various training courses organised by the MDPI. The MDPI will continue to organise training courses for interested businessmen in office management, simple accounting, data processing and allied fields. The Institute plans to mount a crash programme of management improvement for small-scale Ghanaian businessmen who will take over the business of the aliens in the reserved areas. The programme will help Ghanaian businessmen to obtain adequate accounting and audit services.

Financial assistance is of crucial importance for the successful implementation of the provisions of the Act. The Bank of Ghana and the commercial banks are actively studying schemes to help solve the problems of finance. A Credit Insurance Guarantee Scheme has been introduced by the Bank of Ghana to encourage local banks to give loans to small-scale enterprises. In this connexion, the Bank of Ghana proposes to provide technical and advisory services, particularly in accounting and financial management to its clients.

The Ghana Commercial Bank and the Standard Bank of West Africa have recently set up Development Financing Units which are intended to cater for the medium-term needs of Ghanaian businessmen. One of the functions of such units will be to offer advice to customers on management, financial and other related problems of Ghanaian businessmen. The Ghana Commercial Bank also proposes to appoint a Consultative Group to assist them in solving the special problems that Ghanaian businessmen will face with the implementation of the new Act. The Standard Bank of West Africa is engaging a top-class business consultant who will give instructions to businessmen in purchasing techniques, sales organisation, store-keeping, stock-keeping and assessment of market trends. The Bank is engaging a consultant to advise the Ghanaian

businessmen on the Bank's available financial assistance, and to ensure the effective utilisation of the financial assistance when given. In addition, the Bank will offer short courses in basic banking principles and practices in business at its training school.

The National Investment Bank continues to offer expert advice through its technical department—the Development Service Institute. Such advice is available in specific areas of new or existing enterprises such as market analysis, plant location, equipment selection, equipment maintenance, accounting methods and financial control. Also, the newly established Post-Finance Department will be responsible for the setting-up of accounting records of customers who cannot afford to employ full-time accountants. The Bank will provide loans and other financial facilities, like equity and guarantees to agricultural and industrial enterprises.

The new Act does not specifically cover the main areas of operation of the Agricultural Development Bank, but the Bank proposes to finance Ghanaian businesses engaged in distribution and marketing of farm produce and provide advisory services for such businesses.

In furtherance of this objective the Government recently enacted the Ghanaian Business (Promotion) Act of 1970, to replace the Decree as part of an overall long-term plan for the development of indigenous entrepreneurship in the private modern sector of the economy. The most important feature of the new Act is the reservation of certain economic activities to Ghanaians only. Careful thought was given to the selection of the fields to be reserved for Ghanaians. The principles which guided the selection of those areas were:—

(i) that their operations should fall within the technical competence of the Ghanaian labour force;

(ii) that the size of investment and labour requirement fall within the competence of Ghanaian managerial talents;

(iii) that there is an adequate supply of Ghanaian businessmen with the know-how and experience to enter the selected fields;

(iv) that the take-over of these fields by Ghanaians will create no major gaps nor cause major disruptions in the economy.

The following areas of activity are reserved to Ghanaians:

A. From the date of assent of the Act (3rd July, 1970)
Selling in any market in Ghana;
Petty trading;
Hawking and
Selling from a kiosk.

B. After 1st August, 1970;
Wholesale or retail trading business with an annual sales of N₵500,000 and less;

Taxi service;
Overseas business representation in Ghana;

Any business for the sale under the hire-purchase contract of taxis or vehicles to be used in the operation of a taxi business.

C. After the 30th June, 1971.
Commercial transportation by land;
Bakery;
Printing;
Beauty culture;
Produce brokerage;
Advertising and publicity; and
Manufacture of cement blocks for sale.

The new Act, secondly, stipulates that all aliens, whether operating a reserved enterprise or not, should institute training schemes designed to equip their Ghanaian employees with all the skills required for the operation of the business. This provision, which existed under the NLC Decree, is already being implemented by alien businessmen in Accra, Kumasi and Takoradi.

The Secretariat of the Ghanaian Enterprises Advisory Committee will be the channel of communication between the Government and Ghanaians engaged in reserved enterprises for the effective implementation of the provisions of the Act.

Population and Family Planning

Ghana not unlike many developing countries has a rapidly growing population. During the past three or four decades improvements in availability of health services and in the general human environment have resulted in a declining death rate. This commendable development has not, however, been accompanied by any noticeable change in the birth rate. Patterns of high fertility that were considered necessary, in a period of high mortality especially among infants, to assure the survival of an adequate family size, continue to prevail at a time when their *raison d'etre* has lost validity. The Government is committed to improving the quality of life of the people of Ghana and considers family planning as an essential means for attaining its goal.

Although the major effects of rapid population growth will be mainly felt over the next 15 to 25 years, several aspects of the problem are of immediate concern. Population is growing faster than the economy, faster than Ghana's ability to build schools, hospitals and houses, faster than workers can be trained and jobs created for the new workers already entering the labour force each year. The rapid population growth has been contributing to the high level of migration from rural to urban communities thereby further intensifying the problem of the cities. The risks of child-birth have also risen with the high fertility rate. It has been estimated that child birth related deaths among mothers amount to some 4,000 per annum. And as many as 40,000 children fail to reach the age of one. These attest to the need for improving the quality of life.

For these and other reasons the Government intends taking steps to reduce the high rate of population increase, and a National Family Planning Programme has therefore been drawn up to deal with the problem.

Following approval of the Government's population policy in March, 1969 an organisational and operational framework for the National Family Planning Programme was prepared by an *ad hoc* committee of the Manpower Board. In January, 1970 the Government approved the machinery recommended for the Programme and authorised N¢93,000 to finance it for the remainder of the fiscal year. Several senior staff positions have now been filled in the Secretariat which is now a unit of the Ministry of Finance and Economic Planning. The National Family Planning Programme was formally launched by the Minister of Finance and Economic Planning on 22nd May, 1970. The Ministries of Health, Information, Youth and Rural Development and Labour and Social Welfare will have major roles to play in the implementation of the programme.

The first group of family planning nurses has completed training and, in collaboration with private agencies such as the Planned Parenthood Association of Ghana, family planning services are now available in more than 40 separate locations.

Population Policy.—The major aspects of the population policy are summarised below:—

(*a*) A national population policy and programme is being developed as an organic part of social and economic planning and development activity. Details of programmes are to be formulated through the collaborative participation of national and regional entities, both public and private, and representatives of relevant professions and disciplines.

(*b*) The vigorous pursuit of further means to reduce the still high rates of illness and death will be an important aspect of population policy.

(*c*) Specific and quantitative population goals will be established on the basis of reliable demographic data, including the results of the 1970 census of population.

(*d*) Recognizing the crucial importance of a wide understanding of the deleterious effects of unlimited population growth and of means by which couples can safely and effectively control their fertility, the Government will encourage and itself undertake programmes to provide information, advice, and assistance for couples wishing to space or limit their reproduction. These programmes will be educational and persuasive, and not coercive.

(*e*) Ways will be sought to encourage and promote wider productive and gainful employment for women; to increase the proportion of girls entering and completing school; to develop a wider range of non-domestic roles for women; and to examine the structure of Government perquisites and benefits and if necessary change them in such ways as to maximize their favourable, and minimize their unfavourable, influences on fertility.

(f) The Government will adopt policies and establish programmes to guide and regulate the flow of internal migration, influence spatial distribution in the interest of development progress, and reduce the scale and rate of immigration in the interests of national welfare.

(g) Provision will be made to establish and maintain regular contact with the developments and experiences in population control programmes throughout the world through intensified association and participation in international organisations concerned with population problems.

Objectives and strategy.—The principal objectives of the National Family Planning Programme is to reduce the rate of population growth in Ghana. Table 18–1 sets forth preliminary planning estimates of population growth during the next five years on the assumption that the death rate could decline by as much as one point each year. A less favourable development in death rates, a decline of say one-half point per year instead of the one point posited above, would, it had been estimated, result in a modest decline in the rate of population growth given the level of activity recommended below. To achieve a substantial decline will require greater programme effort in subsequent years. The National Family Planning Programme must therefore be viewed as a long-term effort whose cumulative effect over time will be to contribute to a significant decline in fertility.

The Government recognised fully that there are no easy solutions to this problem. It therefore intends pushing its family planning objectives through both the direct means of affecting the fertility rate as well as through less direct but effective long-run means such as raising the overall educational level especially that of women, and providing social amenities such as electrification and recreational facilities. Every effort will be made to improve the receptivity of people to the idea of planned parenthood for improving the quality of life.

TABLE 18–1

ESTIMATES OF BIRTHS PREVENTED BY FAMILY PLANNING PROGRAMME

Year	*No. Commencing Family Planning During Year*	*Active at and of Year*	*Estimated Births Prevented*(a)
1970	54,000	36,000	9,000
1971	78,000	76,000	19,000
1972	96,000	116,000	29,000
1973	118,000	156,000	39,000
1974	155,000	200,000	50,000

(a) Based on the assumption that one-third of those who begin to practice family planning during the year and the same proportion of contraceptive users from previous years will discontinue contraceptive use during the year.

(b) Based on the assumption that one birth will be prevented for each set of four couples using family planning throughout the year.

The Family Planning Programme will of necessity focus its early efforts on the development of family planning services in urban areas where staff, facilities and potentially receptive candidates exist in the largest numbers. Thus by the end of the first year of operation (July, 1971) services should be available in each of the major urban centres. Emphasis will be placed on recruiting older women who have many children as acceptors of family planning. This high risk group contributes disproportionately to infant and maternal mortality and should be the target group for the initial family planning effort. The rural areas will not be neglected, however. At least two major pilot projects will be developed in rural areas during the first year of the programme. These pilot projects will be used to determine the most effective way of providing services to the rural population.

Budget-Rationale and Justification.—The rate of population growth in Ghana can be reduced only by changing the reproductive habits of the Ghanaian population. Experience from a number of countries has shown that a minimum initial expenditure of from NȻ0.03 to NȻ0.04 *per capita* per year in local funds is required to initiate a realistic level of activity.

The first year budget for the National Family Planning Programme amounts to slightly less than NȻ0.04 *per capita* in local currency, less than two per cent of the present health budget and less than 3/10ths of one per cent of the development budget. In addition it is estimated that a programme of this magnitude could expect to attract at least twice this amount in foreign assistance grants.

TABLE 18–2

SUMMARY OF BUDGET ESTIMATES: GHANA NATIONAL FAMILY PLANNING PROGRAMME 1970/71

Details of Expenditure		*Estimate* (NȻ)
Personal emoluments		85,160
Travel and transport expenditure		21,140
General expenditure		39,500
(*a*) Goods and services provided by other Departments	21,000	
(*b*) Other office expenses	31,000	
(*c*) Training	5,000	
Other Departmental expenditure		188,500
(*a*) Publications	26,500	
(*b*) Publicity and education	93,000	
(*c*) Subsidy to participating agencies	64,000	
(*d*) Special studies	3,000	
(*e*) Entertainment	1,000	
		NȻ334,300

Substantial outside assistance, sufficient to meet the foreign exchange requirements of the programme, appear almost certain to be available on a grant basis from governments and international agencies. It is also expected that a project agreement will be signed with USAID whereby local currencies generated under the PL480 programme agreement will be available for family planning on a grant basis. Estimates suggest that the funds available will be sufficient to meet the entire local currency requirements of the programme throughout 1970/71.

19. EDUCATION

The expansion of enrolment in the education system continued at nearly every level during the *Two-year Plan* period (*see* table 19–1.) The output of the system also continued to grow at a rate faster than the economy's capacity to generate job opportunities to accommodate them. In spite of this, public outlays for education have been maintained at a very high level; in the 1960's it has averaged about 25 per cent of central Government current expenditure. Increasing concern has been expressed about the purpose of the education system and its relevance to the nation's development needs.

It is clearly important, therefore, that the education system should operate with maximum effectiveness. In the *Two-year Plan* Government identified a number of shortcomings in the educational system of Ghana and outlined proposals for overcoming them. The main problems underlined in that Plan were weaknesses in administration, planning and co-ordination of educational development; imbalances in the structure of education and mal distribution of facilities; low quality of instruction and facilities at many levels; a lack of relationship between the school curriculum and the demands of work and life after school; and the excessive cost in terms of time, manpower and money of many of the courses currently provided. These are essentially long-term problems which tend to characterise education systems in developing countries. Considerable effort has been made over *Two-year Plan* period. The progress achieved in the *Two-year Plan* period has been outlined in the following paragraphs.

Administration, Planning and Co-ordination

As part of the overall decentralisation of Government administrative responsibility, functions of financial supervision in elementary and secondary schools, teacher training colleges and technical institutions have been transferred to Regional authorities. To complete this process steps are currently being taken to entrust the supervision of the remaining Government institutions to Boards of Governors. As a result of the decentralisation, the Ministry of Education has been able to concentrate more of its energies on overall educational planning, curriculum research and development, and schools supervision. To this end, specialized units have been created for each of these responsibilities, and they are being rapidly staffed with trained Ghanaian personnel. Important steps have also been taken to improve financial supervision. A Budget section was created in the Ministry for this purpose in 1970, and financial procedures are being introduced which will lead to better expenditure analysis and control.

In addition to improved planning of pre-university education, the Government has set up a National Council for Higher Education to rationalize and co-ordinate the development of institutions of higher education for the social and economic development of the nation. The Government has also recently established special co-ordinating machinery

so as to ensure a co-ordinated approach throughout the educational system to problems of relevance to both pre-university education and higher education such as the flow of students into universities from schools and the supply of graduate teachers to schools and colleges

TABLE 19–1

STUDENT ENROLMENT BY TYPE OF INSTITUTION, 1961–62 TO 1969–70

	1961/62	1962/63	1963/64	1964/65	1965/66	1966/67	1967/68	1968/69	1969/70
Primary	641,770	806,211	871,385	1,065,251	1,137,495	1,116,843	1,072,523	1,016,457	957,629
Middle	184,292	204,935	205,626	257,625	267,434	280,866	329,679	381,569	424,430
Secondary	19,062	23,891	27,663	33,131	42,111	42,276	43,889	46,889	49,182
Teacher Training	5,616	6,021	7,711	10,203	15,144	16,411	16,767	19,392	19,264
Technical	1,340	1,575	4,228	4,834	4,956	4,010	3,313	6,031	7,249
Universities	1,390	2,065	2,461	3,414	4,312	4,478	4,768	5,035	4,759
Total	853,470	1,044,698	1,122,074	1,374,458	1,471,452	1,464,914	1,470,939	1,475,373	1,462,513

Correction of sectoral and geographical imbalances

During the early 1960's the country's educational structure became distorted by the headlong rush for expansion of higher and elementary education, largely at the expense of other levels. The creation of three university institutions posed particularly intractable problems because insufficient thought had been given to the supply of qualified students, so that the universities have consistently operated below capacity. To overcome this difficulty, the universities resorted to various expedients to attract more entrants. These included running their own preliminary courses as a substitute for the sixth form, taking sub-standard entrants, with disastrous results in terms of student wastage and examination failures. Another method was the admission of large numbers of teachers and others on study leave, a process which magnified the already bad staffing problems of the elementary schools.

The lessons of the past underscore the need to strengthen the secondary base in advance of university expansion. In the past two years there has been a shift of resources particularly of development funds, into secondary education as Table 19–2 illustrates. University enrolments in the meantime have been stabilised. After three years of stagnation of secondary intake in 1969 the Government opened 33 new Forms 1 at secondary level and added over 300 places in sixth form. The expansion of secondary schools was also necessary on other grounds. The proportion of middle school leavers who can be admitted to secondary school is low and has been falling, so that while there were enough secondary places for 15 per cent of middle school leavers in 1965, the proportion was down to 11 per cent in 1969. This fall continued in 1970 and would have been accelerated but for the creation of new places at secondary Form 1 level.

TABLE 19–2

GHANA GOVERNMENT EXPENDITURES 1965—1970/71

	1965 *Jan.–Dec.*		1966 *Jan.–June*		1966/67 *July–June*		1967/68 *July–June*		1968/69 *July–June*		1969/70 *Estimates July–June*		1970/71 *Provisional Estimated*	
					(*a*) RECURRENT EXPENDITURE									
	NȻM	%	NȻM	%	NȻM	%	NȻM	%	NȻM	%	NȻM	%	NȻM	%
GENERAL ADMINISTRATION ..	1.52	(2.07)	0.60	(2.0)	1.44	(2.3)	1.39	(2.1)	1.57	(2.3)	1.41	(1.8)	1.36	(1.6)
General Education														
Primary Schools	14.10	(25.1)	7.57	(24.7)	17.61	(28.4)	18.57	(28.7)	19.86	(28.2)	21.01	(27.5)	21.10	(25.2)
Middle Schools	6.01	(10.1)	3.05	(10.0)	6.33	(10.2)	6.69	(10.3)	7.16	(10.2)	9.82	(12.8)	10.74	(12.8)
Secondary Schools ..	3.98	(7.1)	1.83	(6.0)	4.33	(7.0)	4.70	(7.3)	5.78	(8.2)	6.12	(8.0)	7.29	(8.7)
Teacher Training	6.46	(11.5)	3.87	(12.6)	8.05	(13.0)	8.80	(13.6)	8.64	(12.3)	9.13	(12.0)	8.92	(10.6)
Textbooks	3.59	(6.4)	1.23	(4.0)	2.90	(4.7)	1.69	(2.6)	1.68	(2.4)	1.75	(2.3)	1.97	(2.4)
Other (mainly administration and supervision) ..	2.35	(4.2)	0.99	(3.2)	1.91	(3.1)	2.07	(3.2)	2.13	(3.0)	2.88	(3.8)	3.97	(4.7)
SUB-TOTAL	36.49	(65.1)	18.54	(60.5)	41.13	(66.3)	42.52	(65.6)	45.25	(64.3)	50.71	(66.4)	54.00	(64.4)
BUREAU OF GHANA LANGUAGES	0.08	(0.0)	0.26	(0.8)	0.07	(0.1)	0.10	(0.2)	0.10	(0.2)	(0.18)	(0.2)	0.19	(0.2)
Technical Education and Vocational (*a*) Training	1.13	(2.0)	1.50	(4.9)	1.11	(1.8)	1.13	(1.7)	1.46	(2.1)	1.67	(2.2)	2.00	(2.4)
Higher Education	10.26	(18.3)	5.47	(17.8)	10.53	(17.0)	(11.92)	(18.4)	13.56	(19.3)	13.38	(17.5)	17.17	(20.5)
Scholarships Secretariat ..	6.59	(11.7)	4.27	(13.9)	7.76	(12.5)	7.71	(11.9)	8.39	(11.9)	9.05	(11.8)	9.10	(10.9)
Total Recurrent Expenditure	56.09	(100)	30.64	(100)	62.04	(100)	64.77	(100)	70.33	(100)	76.40	(100)	83.81	(100)

TABLE 19–2b

GHANA GOVERNMENT EXPENDITURES 1965—1970–71

Item of Expenditure	1965 *Jan.–Dec.*		1966 *July–June*		1966/67 *July–June*		1967/68 *July–June*		1968/69 *July–June*		1969/70 *Estimates July–June*		1970/71 *Provisional Estimates*	
					(*b*) DEVELOPMENT EXPENDITURE									
PRE-UNIVERSITY EDUCATION	N¢M	%	N¢M	%	N¢M	%	N¢M	%	N¢M	%	N¢M	%	N¢M	%
Primary and Middle Schools	0.21	(0.2)	0.01	(0.3)	0.31	(5.3)	0.27	(4.1)	0.16	(3.7)	0.21	(2.1)	0.42	(3.6)
Secondary Schools	1.30	(13.9)	0.26	(10.8)	0.88	(15.4)	2.06	(31.2)	1.39	(31.4)	2.64	(26.1)	3.50	(30.1)
Teacher Training	1.16	(12.4)	0.28	(11.5)	0.30	(5.2)	0.36	(5.5)	0.40	(9.2)	1.18	(11.7)	0.91	(7.8)
Other Expenditure . .	0.69	(7.4)	0.00	(0.1)	0.31	(5.3)	0.16	(2.5)	0.09	(2.1)	0.26	(2.5)	0 42	(3.6)
Sub-Total . .	3.36	(36.1)	0.55	(22.7)	1.80	(31.3)	2.85	(43.2)	2.04	(46.3)	4.29	(42.4)	5.25	(45.2)
TECHNICAL EDUCATION AND VOCATIONAL TRAINING	0.26	(2.8)	0.44	(18.11)	0.56	(9.6)	0.63	(9.6)	0.45	(10.2)	1.20	(11.9)	1.66	(14.3)
Higher Education . .	5.68	(61.1)	1.44	(59.1)	3.40	(59.1)	31.1	(47.2)	1.92	(43.4)	4.62	(45.7)	4.70	(40.5)
Total Development Expenditure	9.30	(100)	2.43	(100)	5.76	(100)	6.59	(100)	4.41	(100)	10.11	(100)	11.61	(100)
(*c*) GRAND TOTAL EDUCATION	65.39		33.07		67.80		71.36		74.74		86.51		95.42	

Notes—(*a*) Establishments under Ministry of Education only.

(*b*) Excluding Sports and Culture.

(*c*) Excluding Research (i.e. Academy of Sciences (C.S.I.R.) Atomic Energy Management Committee and Arts and Culture, which are sometimes classified as part of Education Sector.

Teacher training was another sector in need of re-organisation and new approaches. Universal primary education was introduced without any adequate prior build up in teacher training capacity, so that the share of untrained teachers in the total teaching force rose to the high level of 65 per cent in 1965–66. In that year therefore 35 colleges were opened and as a result, total enrolment grew by almost 50 per cent in a single year from 10,203 to 15,144. Current student enrolment in the training colleges stands at over 19,000 and bearing in mind that the total number of untrained teachers in elementary schools now stands at 22,000 there is now a clear need for rationalisation. Accordingly, Government has embarked on a policy of consolidation of teacher training which will ultimately reduce the number of colleges to 30 or fewer within five years. A start was made with this in 1969 when Ho and Manya Krobo colleges were phased out, and the colleges at Akwatia, Nkawkaw, New Edubiase, Mim and Konongo Odumase were converted to secondary schools. The total number of colleges was thus reduced from 83 to 76. At the same time five other colleges suspended intake to enable them to accommodate students transferred from colleges converted to secondary use.

Government also considered that technical education had received a disproportionately small share of development funds, as Table 19–2 shows. A survey team was therefore invited to consider the country's needs in the development of technical education. The Report of the team, led by Sir Lionel Russel, has been received and the Government will shortly issue a policy statement on this subject. Meanwhile, in the two-year period just completed the technical institutes at Sunyani and Ho have become well-established institutions. The Accra Technical Training Institute also started operations in the same period. A National Vocational Training Institute was established in 1969 with assistance from the International Labour Organisation. This help will continue for a four-year period. The institute has concentrated its initial efforts on the organisation of apprenticeship, in-plant training for industrial and clerical workers, and courses for instructors and training officers.

Concern with imbalances have not been aimed only at achieving a balance between different levels a balance of the educational system but perhaps more importantly, at attaining some balance between the different areas of the country and between towns and rural areas. In this connexion special assistance continued to be offered to the Brong-Ahafo, Northern and Upper Regions in the provision of elementary school buildings, a task which in other areas has been the responsibility of local authorities. The Government also introduced new policies in 1969 on the posting of newly qualified teachers passing out from the colleges. The aim was to equalise throughout the country the ratio of trained teachers to the total enrolment of primary and middle school pupils. The new policy had immediate impact as can be seen from Table 19–3 which shows how postings of newly qualified teachers brought about greater equality of trained teacher ratios between regions.

TABLE 19–3

POSTINGS OF NEWLY QUALIFIED TEACHERS AND THEIR EFFECTS ON TRAINED TEACHER PROVISION BETWEEN REGIONS

Region	*Already Qualified Teachers in Service*	*Resulting Qualified Teacher: Pupil Ratio*	*Newly Posted Qualified Teachers*	*Total Trained Teachers After Postings*	*Present Ratio*
Accra	2,364	1:56.7	355	2,619	1:51.2
Volta	3,314	1:53.1	231	3,545	1:49.7
Eastern ..	4,414	1:62.0	555	4,999	1:54.7
Central ..	2,137	1:73.5	516	2,653	1:59.2
Western ..	1,683	1:82.7	669	2,352	1:59.2
Ashanti ..	3.857	1:79.1	1,406	5,260	1:58.0
Brong-Ahafo ..	1,364	1:90.3	693	2,057	1:59.9
Northern ..	509	1:80.8	186	695	1:59.2
Upper ..	816	1:62.6	199	1,015	1:50.4
All Ghana ..	20,488	1:68.3	4,707	25,195	1:55.6

Improvement in the Quality of Education

To a large extent the apparent decline in the quality of education in our schools has been due to the rapid expansion which took place at a rate unrelated to the availability of trained teachers or administrative personnel. As has been observed above, the proportion of trained teachers at elementary levels fell as low as 35 per cent in 1965/66. However, as forecast in the *Two-Year Plan*, the supply of trained teachers has markedly increased. The Plan target of raising the share of trained teacher to 50 per cent by 1969/70 was over fulfilled; the actual figure now being 53 per cent (25,000 out of 47,000). At higher levels, particularly in Forms 1–5 of secondary schools and in training colleges, the quality of instruction remains unimpressive if examination performance alone is taken as a guide. However, substantial growth in the number of local graduate teachers joining the staff of these institutions should augur well for future qualitative improvement.

TABLE 19–4

RECRUITMENT AND RETENTION OF GRADUATE TEACHERS

	Secondary Schools			Training Colleges		
	Total Teachers	*Ghana Graduates*	*%*	*Total Teachers*	*Ghana Graduates*	*%*
1965-66 ..	2,133	316	14.8	958	93	9.7
1966-67 ..	2,391	416	17.4	1,125	114	10.7
1967-68 ..	2,541	551	21.7	1,195	152	12.7
1968-69 ..	2,697	757	28.1	1,343	219	16.7
1969-70 ..	2,820	931	33.0	1,332	241	18.1

Recruitment and retention of graduate and other teachers have been helped by salary scales introduced in April, 1969. These gave above-average increases to most grades of trained teachers and helped to close the gap between salaries of teachers and those of other public servants.

The re-establishment of an active Inspectorate has been undertaken in the past year and regular inspection of second level institutions has been re-introduced. The inspection visits have the dual purpose of providing professional help and encouragement to classroom teachers and of setting standards against which the performance of schools can be measured.

The Curriculum Research and Development Unit is working on the development of new curricula and materials for the schools and training colleges. In the years since its formation in 1967 the Unit has instituted new syllabuses in certain subjects, launched projects to improve primary teaching methods, working through the training colleges. It has also completed research projects in the field of testing. It has also taken the first steps necessary for providing guidance services to schools and colleges.

Curriculum content

The growing number of school and college leavers from every level of education in Ghana has drawn increasing attention to the problem of relevance in education and how the schools can equip their pupils for careers in life.

At the lower levels of education Government considers that a broad general education, geared to the developing of all the creative faculties of children, whether mental, physical or moral, should be aimed for. This involves giving the pupils some generalised skills of a pre-vocational nature, particularly towards the end of their courses. There is a need therefore to broaden the curriculum to include subjects other than the purely academic. In line with this policy the Government has developed continuation classes in the ninth and tenth years of the elementary course.

The continuation school is designed to give pupils a basic preparation for different types of occupation, such as farming, fishing, retailing and carpentry. Already some twenty continuation schools are in operation and are providing valuable experience on the best means of organising suitable practical courses for young people.

At the secondary level the Government is also diversifying the curriculum with the introduction of practical subjects such as commerce, agriculture, metalwork and domestic science. It has therefore been decided that these subjects will in future be accorded status with traditional academic subjects.

Improved use of resources

Government has been concerned about a more effective use of existing resources and in particular about the small size of some classes especially at primary school and in sixth form of secondary schools. Accordingly, a new primary school staffing formula has been devised and issued. It provides that where classes are very small they must be combined under a single teacher. It is expected that considerable savings will accrue from the implementation of the new regulations, starting in 1970/71. At sixth form level, the Government introduced new rules on class intakes in 1969, standardising the group intake in multiples of 20. This policy made it possible to increase Form 6 intake by 325 pupils in 1969 without any increase in the number of sixth form schools. The average enrolment in lower sixth form rose from 33 to 43 pupils. Some quite drastic measures were taken to achieve this objective, including the admission of day boys to science sixth forms in girls' schools, wherever the size of the girls' group was unjustifiably small.

In lower forms of secondary schools and training colleges, the problem has not been so much one of class sizes being too small—in fact the reverse is the case, and Government has had to reaffirm to schools and colleges its policy that classes at this level should not exceed 35 pupils. The problem is rather one of excessively generous staffing ratios and light teaching loads. In 1959 new norms were introduced for secondary school staffing, and the net effect of these will be to enable more pupils to receive secondary education for the same cost. With improved time-tabling and organization it should also be possible to accommodate more classes without increasing teaching space.

Current problems and policies

The problems identified in the *Two-year Plan* persist, and their solution remains a major concern of Government in formulating its policies for educational expansion and development. The Government is currently re-appraising its policies to make education in Ghana conform more closely with the needs, aspirations and resources of the nation.

Policies in the various sectors and levels of education will be as follows:

Primary and Middle Education.—The effect of the proliferation of primary schools as a result of the Accelerated Development Programme

of 1951 and compulsory universal education of 1961 is still being felt as Middle Form I places become difficult to get. However, the Government accords a high priority to making its policy of producing educational facilities for all a reality. It intends to develop policies and programmes to achieve this objective. In some areas this will require a co-operative programme between the Central Government, the Local Councils and the communities so as to provide school sites and buildings in towns and cities.

In particular the Government is re-examining the present length of the education cycle to see whether it can be shortened, thus enabling children to complete each stage at a younger age and to pass through the system in a shorter time. By comparison with other countries, the thirteen or fourteen years taken by the average child to reach G.C.E. "O" level is unduly long.

The buildings and equipment of existing elementary schools are frequently in deplorable condition. Outside Northern Region, Upper Region and parts of Brong-Ahafo, the provision of buildings is the responsibility of local authorities and many of them have not carried out their functions. A provision of N¢420,800 has been made in the 1970/71 budget for erecting permanent buildings for schools in the Brong-Ahafo, Northern and Upper Regions including smaller allocations for schools for the handicapped. The allocation for the three regions has been increased slightly over that for 1969/70 in order to accelerate the programme of housing the many classes in these areas at present meeting under trees.

The grant to purchase school materials has previously been paid by central Government only for schools started after 1961 but in order to relieve some of the burden of local authorities it has been decided with effect from 1970/71 to pay a grant of N¢12 per teacher at primary level and N¢20 at middle level in respect of all schools regardless of their foundation date. As part of its programme of improving the supply of school materials, the Government will take steps to increase the use of visual materials in the schools, working especially through the Curriculum and Courses Unit at Saltpond and the Teachers Centres being established throughout the country.

The staffing of elementary schools will be strengthened by the progressive replacement of pupil teachers by the newly trained. It is expected that some 3,900 new teachers will be available for posting in September, 1970, and the proportion of qualified teachers should rise to at least 57 per cent in 1970/71. This figure will be further improved to the extent that progress can be made in implementing Government's policy of combining small classes under a single teacher, thus eliminating overstaffing and conserving funds for use on urgent educational improvements. From September, 1970, the Government plans that there shall be at least one trained teacher in every public primary and middle school in the country.

If elementary education is to be improved, regular supervision and inspection services are necessary, both to give professional support to the teacher and to check such abuses as absenteeism. With this in mind,

the Government has decided to improve the staffing of Regional and District Offices and the inspectorate services and to provide a vehicle to every District Office in the coming year.

Particular attention will be given to curriculum development. The development of the continuation classes in the ninth and tenth grades (present M3 and M4) will continue on the foundations already laid. It is hoped to introduce up to ten more continuation schools in each Region in 1970–71 and full budgetary provision has been made for this. The development of these courses and the subsequent work experience of continuation school leavers will be watched particularly closely as a guide to the best way of developing or modifying the middle school course.

Secondary Education.—As already mentioned, Government intends to expand secondary Form 1 places to cater for the rising numbers of school leavers from the middle schools. Almost 1,300 new places (37 streams) will be added in 1970 at this level, increasing total secondary intake by more than 10 per cent. In distributing these new facilities due regard will be paid to the need for a fair geographical allocation and it is Government's intention that by September, 1971, every District will have a secondary school.

The Ministry of Education is now working on a long range development plan for secondary education, which will be completed during the year. This will lay down expansion targets and proposed sites for new schools. Under this programme the distribution of secondary facilities will be equalised on the basis of the relative population and school enrolment of each Region and District. Wherever possible, new facilities will be day places. These are considerably cheaper for Government and parents. However, day schools will not be feasible at first in all areas and the policy will be implemented in such a way as not to unfairly handicap areas of the country where facilities are few at present. In the longer term some existing schools in large towns will be converted from boarding to day schools. As an immediate aid to parents who cannot afford boarding fees but who have children accepted for secondary education and able to reach the school on a day attendance basis, Government has decided that parents of any child admitted to a secondary school may opt for day attendance. Provided the school authorities can be satisfied that the children are living at home or are otherwise reasonably cared for, the children will be admitted on a day basis even at schools which have hitherto been exclusively boarding schools.

A further modest expansion of sixth forms is planned for the coming year and a new sixth form will be established at Sunyani Secondary School. The emphasis will be on expanding the number of science places, and the development programme will provide for more science laboratories to enable the science intake to be further expanded in future. Rationalisation of sixth form courses will continue. Steps will be taken to concentrate teaching either by limiting the number of subjects offered at individual schools and restricting teaching of less common subjects to one or two schools, or by instituting larger sixth form colleges.

In the light of experience with the new sixth form business education courses plans will be made during the year for the extension of teaching of the more applied subjects. A more efficient admissions procedure for sixth form has been worked out with the schools and it is expected that the delays experienced in previous years will be largely eliminated. Meanwhile, the programme of diversification of the curriculum in forms 1 to 5 will be accelerated and a number of existing schools will start the teaching of commerce, agriculture, wood and metal-work, technical drawing, etc. Several of the new schools to be founded in September, 1970 will have a technical or agricultural bias.

In order to achieve the expansion programme a capital provision of N₵3.5 million has been made in the 1970/71 budget for secondary school development. This represents an increase of 32 per cent over the allocation for 1969/70 and reflects the increased priority being given to this sector. The allocation covers the provision of new streams, completion of streams at developing schools, provision of facilities such as science laboratories, domestic science blocks, libraries and equipment and the rehousing of schools in unsatisfactory premises.

Teacher Training.—The Government intends to reshape the teacher training system over the next five years. Selected colleges, numbering not more than 30, will be built up to a size of 500 or more students, who increasingly will be drawn from the output of secondary schools. Facilities will be provided for post-secondary teacher training in Upper Region in 1970 and thereafter every region will have courses at this level.

Certificate "A" initial training enrolments will be reduced in scale from 1970 in order to decrease the danger of an over-supply of trained teachers by the mid-1970s. However, intakes and outputs will be reduced less than total enrolments because a higher proportion will be on two year post-secondary courses with a faster "throughput."

Two more colleges, Akim Swedru and Duayaw Nkwanta, will be converted to secondary schools in 1970, reducing the total number of colleges to 74. Several more colleges will be converted into secondary schools in 1971 and their students transferred to other colleges. Of the colleges retained in the system some will concentrate on the Certificate "A" courses, others on training specialist teachers and a third group on retraining and in-service courses for existing teachers. The physical reorganisation of college facilities will be accompanied by measures to improve the quality of the courses they are offering.

To achieve the necessary developments for teacher training colleges a capital provision of N₵907,400 has been made in the 1970/71 budget. This covers classrooms, dormitory blocks, staff bungalows and services such as electricity and water supply.

Technical Education and Vocational Training.—The function of the national system of technical education and vocational training is to produce technicians to support professional personnel and to train the skilled craftsmen needed by industry, commerce and other sectors of the economy. It is important, therefore, that such training should be

related to the needs of the industry. This was one of the issues considered by the Russel Committee that examined technical education in Ghana. It is planned in 1970/71 to provide technical institutions with more equipment. Liaison with employers is vital in order to ensure a fully relevant curriculum in technical education. Efforts to achieve this will be made through employer representation on consultative bodies, through the arrangement of "sandwich" courses and vacation employment for full-time students. Follow-up services to trace technical school leavers will be organised.

The Government recognises that previous capital provisions for technical education have been inadequate. The allocation of N¢1.7 million for 1970/71 is to improve the facilities of the technical institutions and to increase their enrolment capacity. It covers the provision of scientific and technical equipment for laboratories and workshops. Individual projects include the expansion of the capacity of the Kumasi Technical Teachers' College in order that it may become possible for that institution to take over in the near future the training of teachers currently being undertaken at the Mampong (Ashanti) Technical Teachers Institute.

One area of concern in the training of technical personnel is the organisation of apprenticeship programmes in the country. The existing apprenticeship legislation of 1961 has been found lacking. Revised legislation will therefore be introduced to simplify the procedures and to allow for a more effective organisation and control.

To help up-grade the skills of workers and employees through systematic training schemes a National Vocational Institute was established in 1969 with the assistance of the United Nations Development Programme and the International Labour Organisation. The Institute is to develop training standards and trade testing and organise apprenticeship, in-plant training and training programmes for industrial and clerical workers. It will also consolidate the existing training activities into a national system. The Institute has already started work in the various training fields and has set up a pilot apprenticeship training scheme at the Ghana Railway and Ports Authority at Takoradi. In the coming year it will extend its activities to 19 different establishments under the Ghana Industrial Holding Corporation. It will also open an office in Kumasi to organise training courses for about 1,000 workers in the Ashanti and Northern Regions. An amount of N¢37,460 has been provided in the budget for the activities of the Institute. About two-thirds of this represents the Ghana Government's contribution towards the local operating costs of the project. The balance covers the construction of the first phase of a trade testing centre to develop national standards of skills. Through the activities of the Institute it is planned that Government should play a more active role in establishing and maintaining appropriate standards of training in both the public and the private sectors.

Adult Education.—Adult education should ensure that every citizen has the opportunity of improving his education. The Institute of Adult Education, which co-ordinates most activities in this field, organises two

types of courses—the liberal and the formal. Subjects for the liberal students courses are chosen by the students themselves in consultation with the Institute's officers in charge of the centre and the part-time tutors involved. No formal educational requirements are laid down but the students must have a working knowledge of English. The formal courses range from General Certificate of Education Ordinary Level to External Degree Courses. There are also professional studies such as book-keeping and accountancy.

In addition, the Institute organises residential courses for farmers and co-operative societies in adult residential colleges. During 1970/71 the Institute will concentrate its efforts in this area utilising its residential college at Tsito as a base for a comprehensive rural development programme in the Awudome area. The core of the project will be agricultural extension services and the immediate objective will be to improve knowledge of farming techniques. The project will be run through ten organised farming groups in the Awudome area. It is also planned that three workshops for metal work, woodwork and black-smithing should be established there to form the basis of a village technology. The Institute will also continue its pilot programme in poultry and vegetable gardening at Tamale residential college. The results of these pilot programmes will be disseminated to rural communities all over the country.

A research unit has recently been established which is currently evaluating the work of the Institute as well as carrying out basic research. In order to meet the ever-growing demand for classes, which cannot be met by the present face-to-face methods, it is planned that some of the courses now offered should be taught by correspondence starting from the 1970/71 academic year.

University Education.—There has been considerable expansion in university education since 1961 but this has been at great cost. As table 19–2 shows, the universities and higher education scholarships have consumed between them about a quarter of the recurrent budget for education and half the capital budget since 1965. The cost for a full under-graduate course approaches N₵10,000 and Government is anxious to reduce this figure. One obvious area for economies is the payroll of the universities, as Table 19–5 shows. More efficient management and supervision of the work force, and some requirement that students perform a number of basic services for themselves would appear to be essential elements in a programme to reduce the wage bill.

TABLE 19–5

STUDENT ENROLMENT AND NUMBER OF EMPLOYEES IN THE UNIVERSITY INSTITUTIONS IN GHANA 1969/70

Institution	*Students on roll*	*Teachers*	*Other Employees*	*Total*	*Students per Teachers*	*Employees per Student*
University of Ghana ..	2,501	627[a]	3,182	3,809	4.0	1.52
University of Science and Technology	1,458	294[a]	2,645	2,939	5.0	2.02
University College of Cape Coast	800[b]	147	1,690	1,837	5.4	2.29
Total	4,759	1,068	7,517	8,585	4.5	1.80

[a] Including higher administrative staff and teaching assistants.

[b] Nominal enrolment.—Actual enrolment now only 642, since 158 third year science students were suspended in December, 1969.

The Government established a National Council for Higher Education in 1969 to advise on the development of University Institutions in the country. The Council will examine the financial needs of the Universities and recommend block allocations of funds to individual university institutions towards their running costs and capital expenditure with general indications as to how the allocation should be spent. The Council will also advise on staff structure, rates of remuneration, conditions of appointment and service, promotions and superannuation provision for the staff of university institutions. As a preliminary to establishing a new machinery within the Council to allocate public funds and to control their expenditure, Government appointed a Universities Visitation Committee in 1969 to study the financial situation of the Universities and to make recommendations. Its report has been received and is under consideration. The Government will proceed rapidly to establish an appropriate financial machinery. In the meantime the Government appointed a second committee to look into the question of whether students should make some contribution, possibly financed through a loan scheme, to their upkeep or tuition whilst at university. The Committee reported to the Government in June, 1970.

A potentially serious problem to which Government and the universities are addressing themselves is unemployment among graduates and the need to restructure university courses to conform with the manpower requirements of the economy. The output of general degree students in social science (including history and geography) has recently been at a level which has been found difficult to absorb; even the need for graduate teachers for some of these subjects is almost saturated. Similarly, the proportion of scientists who have concentrated on biology rather than the physical sciences has been too great. There is, therefore, the need to redress the imbalance between the humanities and the sciences generally so that students' choice of courses will conform with the manpower

requirements of the country. It will also be desirable to operate a tracer service for university graduates so as to obtain up-to-date information on their careers. Initial steps have been taken for the establishment of such a service.

It is also planned that there should be some machinery to ensure co-ordination in the responsibility for education in the country since currently this responsibility is split between the Ministry of Education, Sports and Culture for pre-university and technical education and the Prime Minister's Office for the National Council for Higher Education and for the Scholarships Secretariat. A Standing Committee has been set up to co-ordinate and integrate the planning of pre-university and university education.

Summary

The rapid expansion of education in the early 1960's engendered a number of problems. Essentially, the present structure of the education system is one with a heavy base of primary and middle schools and a narrow apex of secondary schools. Only about 10–11 per cent of middle school leavers have obtained places in the secondary system in recent years. Government therefore opened in 1969 33 new Form 1 places in the sixth form. In the 1970/71 academic year more than 1,200 new places will be added at the secondary level. The diversification of the curriculum in Forms 1 to 5 will be accelerated as a number of existing schools start the teaching of commerce, agriculture, wood and metal-work, technical drawing and other practically oriented subjects.

The proliferation of primary and middle schools also affected adversely the quality of teaching in the schools. In 1965/66 the ratio of untrained teachers in the total teaching force was as high as 65 per cent. Many teacher training colleges were therefore established and as a result the ratio of unqualified teachers has now fallen to 47 per cent. It is planned therefore that the colleges should be consolidated to about 30 and the remaining converted to secondary schools. This re-organisation will be accompanied by measures to improve on the quality of the courses they are offering. In the field of technical education steps will be taken to ensure that the tuition offered is more in line with the needs of industrial and other employers. Efforts to achieve this liaison will be made through employer representation on consultative bodies and through the provision of sandwich courses and vacation employment in industry for full-time students.

The increase in the output of the universities has been at great cost. Enrolments are therefore being stabilised and an increasing effort made to reduce costs. Government has set up a committee to co-ordinate the planning of education as between pre-university and the university institutions.

To implement the policies outlined in the previous sections the programme of capital expenditures on education in 1970/71 will be made up as follows:—

TABLE 19–6

CAPITAL BUDGET FOR EDUCATION 1970/71

Level of Education	*Approved Estimates* 1969/70	*Approved Estimates* 1970/71
	N¢	N¢
Primary and Middle Schools	210,000	420,800
Secondary Schools	2,638,810	3,504,400
Teacher Training	1,185,550	907,400
Miscellaneous Pre-University	258,000	417,980
Technical Education	1,205,760	1,662,940
Universities	3,761,870	3,984,290
Other Higher Education	961,270	719,160
Total	10,221,260	11,616,970

Science and Technological Research.—A developing country such as Ghana needs a clearly defined scientific research policy as an aid to economic development. At the national economic planning level scientific research should focus on the proper direction of applied research as well as the effective application of existing and proven results. A scientific research policy should create an environment conducive to scientific studies, and ensure the provision of a reasonable share of the national income for research; it should also delineate clearly the functions of the various agencies involved in scientific research, and encourage close co-ordination in the operational activities of such agencies.

The present arrangement whereby Ghana's national research organisation, the Council for Scientific and Industrial Research (C.S.I.R.), is directly responsible to the Ministry of Finance and Economic Planning is a healthy situation. For a small country like Ghana, the advantage of a single national organization being in charge of scientific research institutions and with close association with the national economic planning machinery, is that it facilitates the task of referring specific problems and assignments to the agency or individual most competent and best qualified for the job.

To avoid costly duplication of effort and to make the fullest use of existing knowledge the following delineation of the functions of the universities, the C.S.I.R. and the appropriate branches of Ministries and corporations is desirable.

(*a*) The C.S.I.R. should have responsibility for national research at all levels and function in such a way as to provide solutions to the problems of Ghana's development.

(*b*) The universities should accept as their primary functions responsibility for the adequate production of the required level and type of manpower, and should also undertake research.

(*c*) The extension divisions of relevant Ministries and corporations should make use of proven research results and refer their problems to the Institutes of the C.S.I.R. for investigation.

Details of the work of the research Institutes of the C.S.I.R. will be found in other chapters of this plan (*see* especially chapters 7, 8 and 11) and their budgetary provisions are summarised in Table 19–7 below.

TABLE 19–7

C.S.I.R. CAPITAL BUDGET, 1969/70 AND 1970/71

	1969–70	1970–71
Secretariat	130,000	74,527
Building and Road Research Institute	128,760	245,000
Water Resources Research Unit	111,000	69,600
Forest Products Research Institute	92,090	116,288
Animal Research Institute	15,810	95,220
Crops Research Institute	565,000	561,000
Aquatic Biology	56,450	46,540
Food Research Institute	277,850	297,850
Soil Research Institute	70,130	70,640
Industrial Research Institute	71,000	78,692
Cocoa Research Institute	552,084	566,400
Total	2,070,184	2,221,757

20. HEALTH AND SOCIAL WELFARE

Health

It has been the policy of Government in recent years to lay emphasis on preventive medicine and to bring health care to the entire rural population. Towards this goal, the Government proposes to develop a network of basic health services throughout the country. These services include communicable disease control, first level medical care, environmental health, maternal and child health, nutrition and health education. The network will be in the form of co-ordinated health centres and health posts staffed by Health Centre Superintendents, Public Health Nurses, Community Health Nurses and other well-trained auxiliaries under professional supervision.

A real change of emphasis towards basic rural health services can only be achieved gradually, particularly as a great deal of hospital construction is under way. It is the policy of Government to plan the phasing of hospital construction in such a way as to limit the call on the capital budget of a given year within acceptable limits.

Communicable disease control

Smallpox and Measles Programme.—Useful work has been done in preventive medicine and the progress of the smallpox and measles campaign has been particularly encouraging. On the basis of recent experience, for each N₵1 spent on the smallpox and measles programme by Government, forty people are immunized against smallpox and nine people against measles. As a rough estimate, every N₵5 or less spent on this programme saves a life. This is far less than the corresponding cost of saving a life through curative services. N₵42,000 is provided in the 1970/71 estimates to continue the campaign.

The Bilharzia Control Programme—The programme at Wa in the Upper Region is making considerable progress. The project area has now been mapped and the base-line data on the prevalence of schistosomiasis and the distribution of the vector snails have been determined by surveys. Certain indicator villages have been selected for the purpose of assessing the results of the control measures. Focal treatment of the snail habitats was started in October, 1969. This will be repeated during the dry season of 1970 and the results will be assessed in the dry season of 1971, when the project comes to an end. N₵30,000 is provided for this project in the 1970/71 capital budget.

Malaria Eradication—Favourable conditions for ensuring the success of a malaria eradication programme do not exist at present. The pre-eradication programme of training and operational research will therefore continue whilst the health infrastructure essential for ensuring the success of an eradication campaign is developed. The sum of N₵25,000 is provided for 1970/71 to carry on the programme.

The Tuberculosis Control Programme—The programme has been retarded by shortages of vaccines and equipment and an insufficient number of doctors. It involves extension of the Baciile Calnette Guerin

(B.C.G.) vaccination campaign to cover the entire country and the development of case-finding and treatment on a domiciliary basis. The progress achieved so far includes vaccination of over 300,000 susceptible people and expansion of detection and treatment facilities from two to nine health posts. The sum of N₵31,500 is earmarked for the continuation of the programme during 1970/71.

The Onchocerciasis Control Programme.—The programme for the past year consisted of surveys to determine black-fly breeding sites and longitudinal studies on the prevalence of the adult fly. Black-fly control by aerial spraying has proved so successful that this method will be operated in 1970/71. N₵45,000 has been provided for this. Discussions are under way to secure international co-operation and assistance for the control of this disease.

Medical Care

Hospitals.—As Table 20–1 shows, expenditures on hospitals have been very large in the last two years and the continuation of these projects will necessitate especially heavy disbursements in 1970/71. N₵1,700,000 is provided in the 1970/71 estimates to carry on construction works on the new Accra Mental Hospital. N₵2,900,000 and N₵1,958,700 are also provided to complete the Tamale Regional and Mampong-Ashanti Hospitals respectively.

Work on renovation, extensions and improvements continued during the Two-year Plan at the Korle Bu, Sekondi, Koforidua, Ho, Sunyani, Cape Coast, Wa, Navrongo, Salaga, Tema, Ankaful (Mental) and Accra Mental Hospitals. During 1970/71 sums have been provided to complete extensions/improvements already started at Korle-Bu, Accra Mental, Sekondi, Cape Coast, Hohoe and Ho Hospitals.

TABLE 20–1

BUDGETED EXPENDITURES ON HOSPITALS, HEALTH POSTS AND CENTRES

(N₵'000)

Hospital	1968/69	1969/70	1970/71	*Total*
Tamale Regional	400.0	1,000.0	2,900.0	4,300.0
New Regional Hospital, Sunyani	—	—	400.0	400.0
Mampong-Ashanti	100.0	400.0	1,048.7	1,548.7
New Accra Mental	200.0	600.0	1,700.0	2,500.0
Ankaful Mental	80.0	131.0	—	211.0
Other Hospitals	576.0	792.0	972.3	2,340.3
Health Centres and Health Posts	363.0	396.0	1,747.0	2,506.0
Total	1,719.0	3,319.0	8,768.0	13,806.0

Health Centres and Posts.—The sum of N¢1,747,000 has been allcoated for Health Centres and Health Posts throughout the country this financial year. Part of this amount will go into building staff quarters and water-tanks for twelve health posts which were completed during the 1969/70 financial year.

Maternal and Child Health.—Progress in this field has been steady and particularly encouraging in the rural areas. An increasing number of Community Health Nurses are working in rural areas and despite the isolation of many Health Posts caused by transport and communication difficulties, they have been doing excellent work at low cost. Morale is good and there is a prospect that the expansion of maternal and child health services will bring about a substantial improvement in maternal and child care in the country.

Nutrition.—A national nutrition survey will be carried out during 1970/71 to provide information needed on the incidence of Kwashiorkor and other nutritional problems for health planning and for evaluation of the effectiveness of health programmes. The survey will be carried out jointly by the Department of Social and Preventive Medicine of the Ghana Medical School, the Department of Nutrition Biochemistry and Food Science of the University of Ghana, and the Nutrition Division of the Ministry of Health. U.S. Peace Corps volunteers will also assist. N¢42,000 has been provided for the survey.

For the promotion of better nutrition, especially for children, N¢19,500 has been provided for establishing nutrition rehabilitation centres at Accra, Ho, Cape Coast, Kintampo and Kumasi. Equipment for these centres has been provided by UNICEF. The centres will help educate mothers of mal-nourished children on the food their children need as well as observe the progress in treating these children.

Health Laboratories.—One of the major on-going projects in this field during the past year has been the construction of a central chemical laboratory. This laboratory will provide up-to-date facilities for the examination of foods, drinks, drugs effluent from mines and rivers as well as the performance of forensic work on behalf of the police. This laboratory will contribute to the health of the people particularly in connection with locally manufactured goods which hitherto had not been subjected to rigorous examination. The sum of N¢20,000 has been provided to complete the project during 1970/71.

Environmental Health.—Unsafe drinking water is a major cause of a large number of diseases, some of the most important in Ghana being typhoid, dysentry, bilharzia and guinea-worm. Since the greatest danger is usually contamination of the source of drinking water, Government has embarked on a programme to improve rural water supplies, further details of which are given in chapter 16. In addition, campaigns will be mounted for cleansing both rural and urban areas and education programmes will be intensified in the prevention of environmental pollution and on waste disposal. To this end, health weeks and health days will be observed.

Dental Health

Dental Health will be integrated with the general health services, and the main stress will be on the use of nurses and other paramedical staff.

Education and Training

The Government is giving high priority to training of paramedical staff in view of the present under-staffed state of much of the health service. The new School of Hygiene is scheduled to be completed during 1970/71 and will subsequently add to the flow of health inspectors and public health nurses. The School has accommodation for ninety students. The Ministry of Health will organise re-orientation and vocational training programmes for new physicians and paramedical personnel.

Medical Stores

Government has provided N₵62,000 for the completion of the medical stores at Tema during 1970/71. This project will, when completed, economise on medical supplies which have hitherto been liable to deterioration as a result of inadequate storage facilities.

Social Welfare

The Department of Social Welfare, which now forms part of the Ministry of Youth and Rural Development, provides for the amelioration of social problems. The services provided by the Department are directed towards the relief of the sufferings and distress of individuals and depressed groups in the community; correctional and preventive services for the socially mal-adjusted; and programmes to promote healthy social adjustment. The Department also guides and co-ordinates the activities of independent and voluntary organisations which are engaged in promoting the social well-being of the population.

During the Two-year Plan period the Department of Social Welfare and Community Development embarked on a programme to improve the quality of its personnel, a postgraduate course was started at the University of Ghana in 1969 for new graduates in the Department and other Senior Officers are undergoing courses at the Institute of Public Administration. In addition, one hundred day nursery attendants were trained during the period under review.

During the Two-year Plan period, family reconciliation and maintenance of children increased by 300 cases which indicates heightened awareness of the value of this service. More than 200 women's groups were opened in community and neighbouring centres, prisons, army and the police force for talks on home management. The enrolment into Women Welfare Centres increased from 12 to 20 with an increase of 1,000 school leavers. The number of registered day nurseries increased from 53 to 70. In addition the number of children in children's homes in Accra, Kumasi and Tamale increased from 84 to 120. Registered disabled persons who were helped increased from 350 to 500. Welfare work also

continued in the hospitals—cases handled increased from 589 to 700—and the intake of the central destitute infirmary at Bekwai increased from 48 to 70 persons. Probationers increased by 200 and supervisors by 150 and 1,000 enquiries were made for the courts during the period under review.

During the One-year Plan period, the activities of the Department will be decentralised to enable its services to be spread over a large proportion of the population than at present.

Prominent among the planned activities in 1970/71 are the following services for children:

(*a*) *Day nurseries.*—The Department's role will be more supervisory than operational in order to achieve economy and to foster greater private participation. The Department will, however, continue to train the staff of day nurseries to ensure the proper handling of children. In this respect funds will be provided to complete the construction of the Madina day nursery college, Accra, established as the result of an agreement between the Ghana Government and UNICEF. When the project is completed the Department will be able to run training courses for eighty nurseries each year.

(*b*) *Children's homes.*—The Department runs and controls three homes for orphans and other children deprived of normal family life. To improve this service it is intended to make extensions to existing homes with immediate attention to the completion of the Tamale home which caters for 20 children.

(*c*) The Department's efforts in bringing conciliation to the home will be continued. It will also continue to service the maintenance of Children's Act of 1965 and the Adoption Act of 1952, and step up its efforts under these acts in order to ensure that children who suffer from parental neglect, especially paternal neglect are adequately provided for.

In addition to providing services in Juvenile Courts, the Department will continue to run and maintain remand homes, probation homes and industrial schools for delinquent children. It will also maintain its after-care service, which is an essential ingredient in the training and rehabilitation of delinquents, both juvenile and adult. Provision has been made for extensions to the Sekondi Boy's Industrial School during the plan period, with an aim of improving sanitary conditions and providing quarters on the compound for two housemasters who act as substitute parents.

The Department will intensify its rehabilitation programme, which is aimed at helping disabled persons to re-adjust themselves to their environment. Up to the present the benefits of rehabilitation have been extended to men only; during 1970/71 this service will be extended to disabled women in the Upper and Volta Regions. For this purpose

annexes will be constructed to the existing rehabilitation units at Bolgatanga and Ho leading to the admission and training of sixty disabled women. The Department will continue to render a number of services to individuals. These include:—

(*a*) Probation and other social welfare services of the courts (juvenile and adult);

(*b*) Treatment of juvenile delinquency in special delinquency institutions;

(*c*) After-care services for adults and juvenile delinquency institutions;

(*d*) Hospital welfare services, including the welfare of the mentally ill;

(*e*) Maintenance of children's service under the Children's Maintenance Act;

(*f*) Family reconciliation;

(*g*) Problems of destitution;

(*h*) Deportation and repatriation cases.

The Department will continue to render emergency relief services during national disasters such as floods, fires and earthquakes. It will work in close liaison with voluntary organisations such as the Red Cross Society, benevolent societies and religious bodies and, where necessary, will co-ordinate their efforts.

21. RURAL DEVELOPMENT

The development policy and strategy of the Government lays special emphasis on the rural areas. Accordingly, the relevant chapters of this Plan—agriculture, transport, power, water supply, health and social welfare, housing and education—give full expression to this priority. This is because Government is conscious of the great imbalance in the distribution of incomes as well as of employment opportunities between rural and urban communities. Since over 60 per cent of the active labour force of the nation reside in the rural areas, a development strategy which takes no cognisance of this runs the risk of being irrelevant. The promotion of the welfare of the people is the Government's supreme objective. To this end, a programme designed to raise the national standard of living cannot succeed unless it improves the productivity, living conditions and welfare of the rural communities.

Nature of the rural development problem

The problem of rural development in Ghana, may in some respects, be regarded as a problem of underdevelopment in the country. Some of the basic features of this problem have been exacerbated by policies pursued earlier and which failed to provide suitable programmes, social infrastructure and amenities for improving the lot of rural communities. The mistakes of the past are reflected in the low current level of agricultural productivity due to out-dated cultivation techniques, the lack of efficient marketing, storage and processing facilities for agricultural products in the rural areas, the lack of basic infrastructure in the form of reliable feeder roads and electricity, the non-availability of certain essential modern amenities such as good drinking water, elementary health facilities, decent housing and good quality educational facilities; the lack of adequate office and housing accommodation at the district and regional levels for technical personnel operating in the rural areas, the total absence of functionally viable small and medium-sized towns in the rural areas where the farmer could go without difficulty to procure inputs for his farm and sell his produce and, finally, the poor quality of planning data on the rural areas.

Attempts in the past at solving some of these problems have been marred by unimaginative planning, lack of co-ordination between agencies and the absence of any form of evaluation of the execution of projects in the rural areas. The result has been that rural areas have remained basically unchanged in spite of the heavy investments that have been made, while the few urban centres have continued to expand in a way unrelated to the administrative and financial capacity of the existing city councils to cope with them. The provision of employment and services such as water supply, electricity, housing and schools in the main cities of the country has lagged behind the rate at which the rural migrants enter the cities. In the rural areas the exodus of young school leavers has meant an ageing agricultural labour force and has added to the difficulties of supplying enough food to the expanding towns.

Policies for rural development

During the 1970/71 financial year the general policy for rural development will be to encourage increased agricultural production, to extend certain basic modern amenities to the rural areas and to strengthen the technical staff at the district and regional levels so as to facilitate the availability of planning data and the efficient execution of projects in the rural areas.

In more specific terms, increased agricultural production as a policy for rural development will be promoted by improved agricultural extension services, a better feeder road network, strengthening the co-operative movement to provide the rural population with better marketing, storage and processing facilities, making available to the farmer credit on reasonable terms and creating in the rural areas functionally viable small towns. These towns should be service centres for rural communities in terms of banking institutions, farm machine repair depots, district co-operative shopping centres for the procurement of improved varieties of seeds and livestock, and district co-operative marketing, storage and processing centres for farm products. The main reasoning behind increased agricultural production as a policy for rural development is that with increased agricultural production will come rising rural incomes out of which the rural population can support basic modern amenities such as good drinking water, health facilities, better housing and electricity. In addition, the extension of certain basic modern amenities to the rural areas through self-help and Government subventions will be pursued to redress the imbalance that exists between urban and rural areas in the availability of basic services, while at the same time creating an environment in the rural areas conducive to increased economic activity through greater agricultural production.

In order to promote increased agricultural production in the rural areas, Government during the 1970/71 financial year will concentrate on the development of few critical commodities; accelerate the feeder roads construction programme throughout the country; expand extension services in the use of fertilizers to farmers in the rural areas; improve the quality of mechanisation services to the farmer; increase agricultural credit facilities by expanding the work of the Agricultural Development Bank and consolidate and strengthen existing agricultural co-operative organisations servicing the rural areas. The specific measures to be adopted by Government to promote agricultural development in the rural areas are already outlined in greater detail in chapters 7 and 8.

An essential part of the Government's strategy for the improvements in rural areas is to strengthen existing agricultural co-operative organisations and make them efficient business units so that they constitute the main impetus for development and expansion in later years. The aim during the 1970/71 financial year will be to make co-operatives serving the rural areas effective agencies for providing some of the basic economic services required by the rural populations. The Government is accordingly providing in the 1970/71 budget an amount of N₵58,700 for the

development of co-operative societies in the country. Part of this amount will be used in establishing a Co-operative Training College with the assistance of two experts from the ILO and the United Nations respectively.

During the 1970/71 financial year, the Government will expand its agricultural credit to the rural areas by opening new Farm Credit Service Office in Bolgatanga, Atebubu, Ejura, Tarkwa, Kete Krachi and Cape Coast, in addition to the Agricultural Development Bank offices already located in Accra, Kumasi, Tamale, Koforidua, Hohoe, Sunyani, Bawku, Wa and Agona Swedru. It will also increase its small loan facilities to small farmers to the tune of N₵2.2 million for the production of maize, ginger, shallots, cassava, pineapple, sugar cane, tobacco, cotton, kenaf, oil palm, citrus, and rubber. Small loans will also be made available to livestock farmers especially for cattle, sheep and poultry and to fishermen. The small loans scheme to small farmers will help the rural population to raise capital for procurement of improved seeds, fertilizers and implements as well as to improve co-operative marketing and storage practices.

The other policies directed specifically towards rural development and already described in detail in earlier chapters include:

(*a*) An expanded programme of feeder road construction and maintenance (*see* chapter 13);

(*b*) An enlarged programme for rural water supplies to be operated by the Ghana Water and Sewerage Corporation with an increased subsidy from the Government (*see* chapter 16);

(*c*) In the field of health, the Government will continue its policy of laying emphasis on preventive medicine and of extending medical care to the rural population. Measures in this direction are described in chapter 20.

(*d*) A scheme for rural electrification at present under preparation; N₵2.2 million has been allocated for this in the 1970/71 bugdet (*see* chapter 14).

The Government's programme for community development in rural areas will take two forms, the construction of self-help projects and other environmental amenities such as schools, post offices, clinics, day nurseries and community centres; and the construction of model village settlements and townships. N₵200,000 has been provided in the 1970/71 budget for 129 self-help projects throughout the country. An additional sum of N₵400,000 has been allocated for the construction for demonstration purposes of model village settlements and townships in each region (*see* chapter 17). The National Service Corps and the technical staff of the Ministry of Youth and Rural Development will execute these projects during the year.

In pursuit of its policy of rural development, the Government will strengthen the professional technical staff at the district and regional levels to facilitate the flow of basic planning data from the rural areas to the central planning agencies in Accra, and to ensure effective execution

of development projects in the rural areas. The Regional Planning Committees will be revitalized and the technical staff of these Committees will be strengthened and increased. They have been called upon to provide statistical and socio-economic data on the development problems of each district and region in the country for inclusion in a medium-term national development plan and preliminary work is already under way. The Committees will also be called upon to report on progress being made on the execution of development projects contained in the 1970/71 budget.

In order to increase the technical and professional staff in the districts and regions, the Government will speed up the construction of offices, bungalows, junior staff quarters and resthouses throughout the country. It is intended that with the construction of these facilities, central Government agencies in charge of agricultural development, co-operative organizations, public health, water supply, education and community development will be brought nearer to the rural population of the country.

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